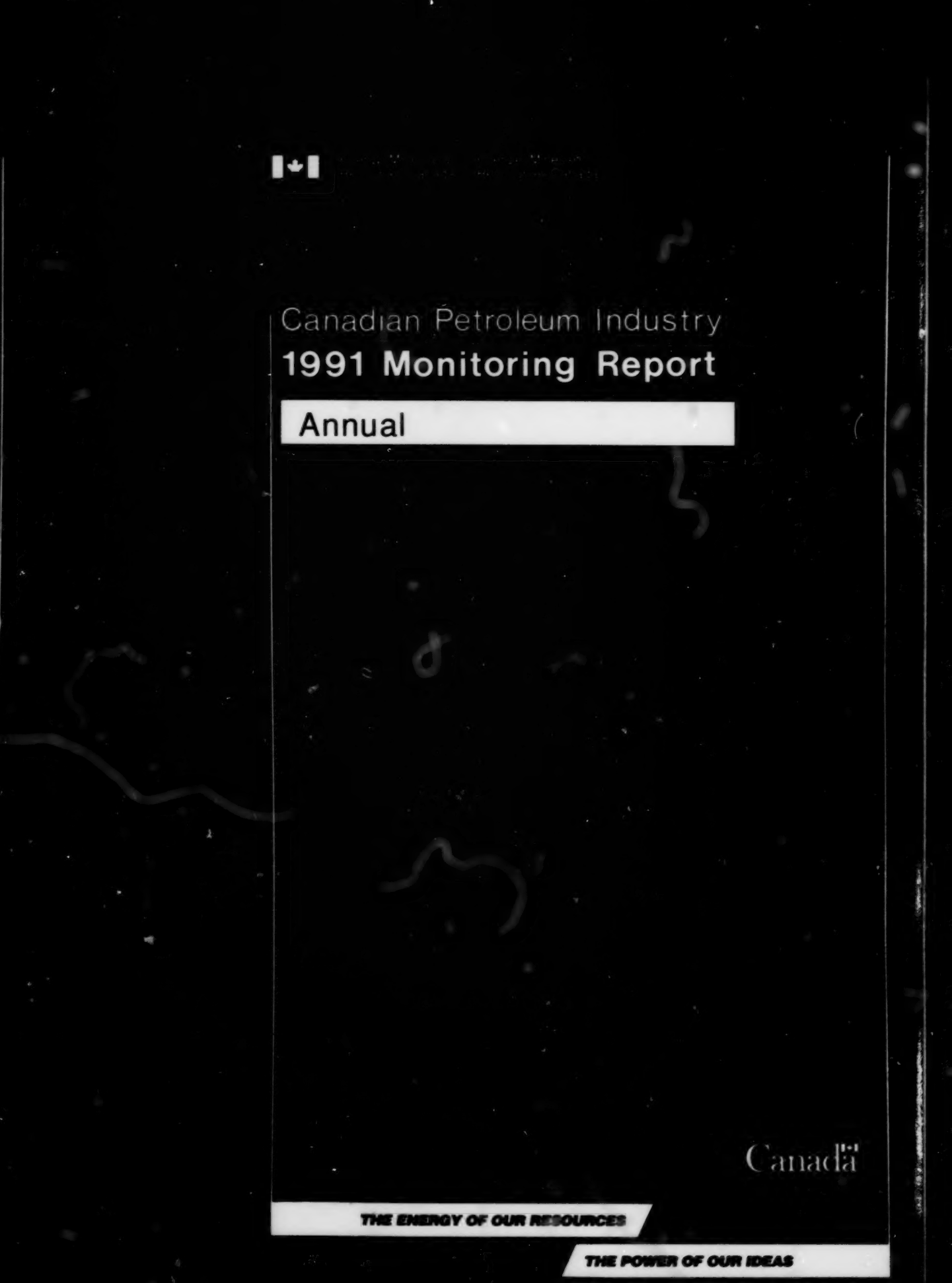
Canadian Petroleum Industry
1991 Monitoring Report
Annual
Canada
THE ENERGY OF OUR RESOURCES
THE POWER OF OUR IDEAS

Canadian Petroleum Industry

1991 Monitoring Report

Annual

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The Honourable Jake Epp
Minister of Energy, Mines and Resources
Ottawa, Ontario

Dear Minister:

I am pleased to submit this report which describes the financial performance of the oil and gas industry in Canada during 1991. The report is based on data from 154 companies, accounting for over 90% of total revenues of the petroleum industry. Therefore, the data reflect fairly the performance of the entire industry in Canada.

In 1991, industry cash flow fell 22% to $7.6 billion and net income dropped $4.7 billion from a profit of $2.3 billion in 1990 to a loss of $2.4 billion in 1991. Both upstream and downstream segments of the industry recorded lower net income and cash flow. Upstream revenues fell $2.8 billion as a result of lower crude oil and marketable natural gas prices. The drop in natural gas prices to their lowest level in well over a decade resulted in many companies taking asset write-offs totalling almost $2 billion. The downstream segment reported lower margins. As a result, the rate of return on average shareholders' equity was negative 6% in 1991 against positive 5.6% in 1990.

Despite the fall in cash flow, the industry increased overall capital expenditures by 9% to $9.5 billion, largely on the strength of participation in major projects such as the Caroline gas field development, Hibernia, Cohasset/Panuke and the Bi-Provincial Upgrader. This increase, together with the drop in cash flow, resulted in a reinvestment rate of 126%, compared with the reinvestment rate of 90% in 1990.

Respectfully submitted,

Bruce Howe
Chairman

July 8, 1992

New and Noteworthy

New information is presented in this Monitoring Report and, as in the past, it is crucial that the report be read with a number of caveats to which attention is drawn under "Noteworthy".

New

- Included in this report are a number of new appendices covering the following topics:

— ranges of profitability reported within the upstream segment,

— future removal and site restoration costs,

— ceiling test write downs, and

— Last-In/First-Out (LIFO) vs. First-In/First-Out (FIFO) accounting for downstream inventories.

Noteworthy

- The federal Budget of February 25, 1992 announced the wind-up of the Petroleum Monitoring Agency. To streamline operations, the Budget recommended that the monitoring function under the Energy Monitoring Act should be rolled into the Department of Energy, Mines and Resources. Legislation will be introduced in Parliament to wind up the Petroleum Monitoring Agency; however, the Act's substantive provisions will remain in force. The surveys of financial results will be continued while and after the monitoring function is rolled into the Department. As streamlining may require elimination of certain of that Agency's former products, surveys of clients are being conducted to ensure that nothing essential is dropped. In this context, you may wish to write stating your impressions of this Report and the areas which are most useful.

- In 1991, a major integrated oil and gas company changed its method of accounting for inventories to the Last-In/First-Out (LIFO) method. Previously the cost of crude oil at refineries and of products was determined using the average-cost method while crude oil in transit was valued at actual cost. The adoption of the LIFO method has been applied retroactively, and the 1990 data have been restated. This change resulted in the downward revision of industry rates of returns for 1990. In addition, a number of companies adopted the LIFO inventory valuation effective January 1, 1992 without restating prior years. Had these companies applied the change to prior years, they would have also reported significantly higher earnings in 1991 but much lower earnings in 1990 (see Appendix H for more information).

- In accordance with the Canadian Institute of Chartered Accountants' recommendation on accounting for capital assets, most companies accounted for future removal and site restoration costs. This cost recognition within company books reduced current year's net income. However, in a number of cases, companies adopted the policy retroactively, thereby reducing earnings for prior years. No attempt has been made to adjust prior year data (see Appendix F for more detail).

- Downward revisions to the rates of return on upstream and downstream capital employed were made to data for the full year 1990 following the receipt of revised data on the segmented allocation of expenses. Previously these expenses had been reported as a corporate item and included with 'Other Canadian' activities. The total rate of return was not changed.

- Prior to January 1, 1991 the federal tax on petroleum products was composed of the Federal Sales Tax (FST) and the Federal Excise Tax (FET). On January 1, 1991 the FST was replaced by the Goods and Services Tax (GST). The GST was set at 7% of the retail price of all petroleum products. While the FST was calculated at 13.5% of the average wholesale price, the GST is calculated on the value including FET, provincial taxes and retailers' mark-up, in addition to the base on which the FST was levied. For financial reporting purposes, the FST was included in both revenues and expenses. The GST was excluded from the financial statements, according to generally accepted accounting principles.

- Appendix A1 'Year in Review' sets out in detail events worthy of note.

- Many numbers in the body of the report are rounded to improve readability. Percentage changes, however, are calculated on the basis of detailed figures shown in Appendix B.

- While 159 companies have reported (see Appendix I), this report is based on data from 154 companies. Five small companies have been excluded due to the lack of comparable data for the preceding period.

- Restructuring of the Canadian petroleum industry continued in 1991, with a number of acquisitions and mergers. Prominent mergers and acquisitions include:

— Co-enerco Resources Ltd. purchased oil and gas assets in northwestern Alberta from Amoco Canada Petroleum Company Ltd., Encor Inc., and Maligne Resources Limited.

— Ladd Exploration was purchased by Amax Petroleum of Canada Inc.

— Chauvco Resources Ltd. purchased Esso Resources Canada Limited's interests in the Rycroft, Bellshill Lake unit and Thompson Lake pool.

— Paragon Petroleum Limited, PPC Oil & Gas Corp. and Alterio Resources Limited merged, resulting in the creation of Paragon Petroleum Corporation.

— Inverness Petroleum Ltd. purchased Pancontinental Oil Ltd.

— Coseka Resources Limited became a wholly-owned subsidiary of North Canadian Oils Ltd.

— NOVA Petrochemicals Inc. changed its name to Novacor Chemicals (Canada) Ltd./Novacor Chimie (Canada) Ltée. The Alberta Gas Ethylene Company amalgamated with Novacor Chemicals Ltd. to form Novacor Chemicals Ltd., and Polysar Petrochemicals Ltd. changed its name to Novacor Petrochemicals Ltd.

— Polysar Hydrocarbons Ltd., Hi-Point Industries Ltd. and Genesis Pipeline Canada Ltd. amalgamated to form Genesis Pipeline Canada Ltd.

— Lasmo Canada Inc. purchased Petro-Canada's 12.7% working interest in the Nipisi Gilwood Unit No. 1.

— Petro-Canada Limited became a public company, with 19.5% of its shares being traded.

— Westcoast Energy Inc. sold its 10.5% stake in Ranger Oil Limited.

— Poco Petroleums Ltd. acquired Voyager Energy Inc.

— Sherritt Gordon Limited purchased the Canadian assets of Canada Northwest Energy Limited.

— Dorset Exploration Ltd. and Husky Oil Ltd. purchased various assets from Esso Resources Canada Limited.

— NAL Resources Ltd. acquired assets from Northstar Energy Corporation.

— Shell Canada Ltd. acquired Gulf Canada Resources' interest in the Caroline Gas Field.

— The City of Medicine Hat purchased producing assets from Buttes Resources Canada, Ltd.

— Ocelot Industries Ltd. acquired oil and gas assets from Lone Pine Resources Ltd.

— Anderson Exploration Ltd. purchased Columbia Gas Development of Canada Ltd. from its U.S. parent, Columbia Gas Systems Inc.

— Bow Valley Industries Ltd. acquired PanPacific Petroleum Inc.'s share in Southern Cross (Tanjung) Limited.

— Bowtex Energy Ltd. amalgamated with its parent company, Bowtex Energy (Canada) Corporation.

— Hope Brook Gold Inc. became a wholly-owned subsidiary of BP Canada Inc.

— Cabre Exploration Ltd. amalgamated with its subsidiary Cabre 1990 Ltd.

— Canadian Conquest Exploration Inc. sold Concord Resources Ltd. and Energy West Resources.

— Canadian Gas Gathering Systems Inc. purchased assets from Gulf Canada Resources Limited.

— Mannville Oil & Gas Ltd. bought 27.9% of Canadian Jorex Limited.

— Co-operative Energy Development Corporation changed its name to Co-enerco Resources Ltd.

— Conwest Exploration Company Ltd. reduced its holdings in Colonial Oil & Gas Limited to 40% from 49%.

— B.G. Consulting Inc. sold 50% of its holdings in Excel Energy Inc. to 364169 Alberta Ltd.

— Poco Petroleums Ltd. increased its ownership in Bonanza Oil & Gas Ltd. and Central Explorers Inc.

— Gulf Canada Resources Limited sold oil and gas properties to Vista International Petroleums Ltd.

— Broken Hill Proprietary acquired all the remaining common shares of Hamilton Oil Corp. The latter was then dissolved and replaced by Hamilton Oil Co., Inc. Management of all Canadian assets and property was transferred to Broken Hill's Canadian subsidiary, BHP Petroleum (Canada) Ltd.

— Li Ka Shing purchased the 43% of Husky Oil Ltd. previously held by Nova Corporation.

— Mark Resources Inc. purchased the remaining 25% interest in the Bigstick block at Sandhills.

— Saskatchewan Oil and Gas Corporation purchased all of the assets of Moose Jaw Asphalt Inc.

— Northstar Energy Corporation acquired the oil and gas division of Accord Capital Corporation.

— Ocelot Industries Ltd. was split into two publicly traded entities; one containing its chemical interests (Ocelot Industries Ltd.) and the other (Ocelot Energy Inc.) containing its oil and gas operations.

— OMV (Canada) Ltd. purchased Page Canada Resources Limited.

— PanCanadian Petroleum Limited sold its U.S. oil and gas assets.

— Pembina Resources Limited purchased Peace Pipe Line Ltd.

— Norsk Hydro sold its 10.3% holdings in Ranger Oil Limited.

— Roan Resources Ltd. purchased all of Shell Canada Limited's interests in the greater Mayberries area of Alberta.

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Summary and Highlights

General Economic Background

The Canadian economy showed the effects of the recession with a fall in real Gross Domestic Product (GDP) of 1.5% to $559 billion during 1991, as compared to 1990. Business fixed capital formation dropped at a rate of 4% to $107 billion. In terms of 1986 dollars, real personal expenditures on consumer goods and services fell 1.1% to $335 billion. Total government investment rose by 0.2% to $16 billion while government current expenditures increased 2.4% to $115 billion. The value of imports rose by 2.5% and exports, by 0.6% from corresponding 1990 levels.

In 1991, the petroleum industry's contribution to Canada's real industrial production grew to 11.2%, an increase of 0.7 percentage points relative to 1990, while as a percentage of Canada's real GDP, the industry's contribution was 2.7%.

The rate of inflation as measured by the Consumer Price Index (CPI) in 1991 was 4.7%, down from 5.5% in 1990.

The average rate of unemployment in 1991 rose to 10.3% from 8.1% in 1990. Total Canadian employment fell to 12.3 million persons from 12.6 million in 1990.

Financial Performance

Total Operations

- Profits: *Net income from total operations* fell $4.7 billion from a net profit of $2.3 billion in 1990 to a net loss of $2.4 billion in 1991. Lower revenues, higher write-offs following ceiling tests taken in response to lower marketable natural gas prices, site restoration costs and other asset write-offs more than offset lower interest expenses, and reduced current and deferred income taxes.

- Total net income for foreign-controlled companies fell $2.4 billion in 1991 to a loss of $1.2 billion as lower net income was recorded for all business segments. Net income for Canadian-controlled companies dropped $2.2 billion to a loss of $1.2 billion in 1991 due to decreases in upstream, downstream and foreign operations, more than offsetting a small increase in 'Other Canadian' activities.

- *The rate of return on shareholders' equity* for the total Canadian petroleum industry was negative 6% in 1991 against positive 5.6% in 1990. The five-year weighted average rate of return for the period ending in 1991 increased to 3.3% from an average of 3.2% for that ending in 1990. The return on capital employed by the Canadian petroleum industry in 1991 declined to negative 0.8% from positive 4.8% in 1990.

Upstream Operations

- *Revenues from upstream operations* fell 14% ($2.8 billion) to $18.1 billion in 1991 mainly as a result of a drop in realized crude oil and marketable natural gas prices. Upstream net income fell $2.9 billion from a profit of $1.7 billion in 1990 to a loss of $1.2 billion in 1991. The reduction was due to a $2.8 billion shortfall in revenues together with an increase of $2 billion in non-cash charges (largely ceiling test write-offs) and higher operating costs which more than offset reduced royalty expenses, and current and deferred income taxes. Cash flow declined 24% to $6.2 billion.

Downstream Operations

- *Total downstream sales revenues* decreased 12% to $29 billion as a result of a decline in overall Canadian demand and the replacement of the Federal Sales Tax (FST) by the Goods and Services Tax (GST). The GST has been excluded from companies revenues in accordance with generally accepted accounting principles. The FST was included in both revenues and expenses. Net income fell $1.1 billion from a profit of $505 million in 1990 to a loss of $600 million in 1991 due to the combined weakness of the oil products and petrochemical business segments.

- *Net income for oil products operations* fell $870 million from a profit of $240 million in 1990 to a loss of $635 million in 1991 causing the return on capital employed to decrease to negative 2.8% from positive 3.2% in 1990. Cash flow declined 26% to $650 million in 1991.

Sources and Uses of Funds

Internal Cash Flow

- *Internal cash flow from total operations* decreased 22% to $7.6 billion in 1991 due to lower revenues for both upstream and downstream operations which more than offset declines in royalties, interest expenses and current income taxes. Cash flow decreased in all industry segments with the single exception of 'Other Canadian' operations.

Net External Sources

- *Net external sources of funds* provided $2.8 billion in 1991 vs. $540 million in 1990. New long-term debt exceeded redemptions by $1.7 billion compared with $470 million of net repayments in 1990. Net new equity issues were $1.1 billion in 1991, vs. $1 billion in new equity, net of repurchases, in 1990.

Discretionary Uses

- In 1991, the industry increased its net capital outlay by 9% to $9.5 billion. Dividend payments fell 19% from $1.7 billion to $1.4 billion. In 1990 and 1991, the impact of asset sales can be seen in the excess of 'All Other Sources' over 'All Other Uses.' The net draw-down of working capital of $40 million in 1990 compares with a net increase of $5 million in the working capital position in 1991.

Capital Expenditures

- *Total capital expenditures* in 1991 increased 10% to $9.7 billion, with domestic expenditures increasing 9% to $8.9 billion and outlays abroad rising 24% to $810 million. Upstream spending, representing 76% of the total, rose 12% to $7.4 billion in 1991.

- *Exploration Expenditures in Canada* fell 14% to $2.3 billion in 1991, with expenditures decreasing by 13% in the provinces and 15% on Canada Lands. Expenditures on Canada Lands accounted for 7% of the total in 1991, unchanged over 1990. Outlays by foreign-controlled companies were 12% lower in 1991 than in 1990, while those for Canadian-controlled companies fell by 15%.

- *Downstream Expenditures increased* 16% to $1.3 billion in 1991 over 1990. Decreased expenditures for refineries were more than offset by increased spending on petrochemical plants and marketing outlets.

Reinvestment Rates

- Total net capital expenditures as a percentage of internal cash flow were 126% in 1991, up from 90% in 1990. Upstream capital expenditures was 116% of cash flow, up 36 percentage points from 1990.

Dividends

- *Dividends* decreased 19% to $1.4 billion in 1991. Dividends by Canadian-controlled companies decreased 21% to $515 million. Payments by foreign-controlled companies fell 18% to $840 million.

Comparative Performance: Petroleum and Other Industries

Net Income

- According to Statistics Canada data, the petroleum industry's net income from Canadian operations — exclusive of Crown corporations' results — decreased $3.6 billion from a profit of $2.7 billion in 1990 to a loss of $900 million in 1991. This compares with an 86% decrease in net income to $2.1 billion for all other non-financial industries.

Capital Expenditures

- The petroleum industry's capital expenditures in Canada increased 10% in 1991 over 1990. Capital expenditures of non-financial industries excluding petroleum decreased 9%. As a result, the petroleum industry represented 16% of total non-financial industries' capital expenditures, up 2 percentage points from 1990.

Ownership and Control Trends

- Canadian ownership of the petroleum industry, based on upstream revenues, increased from 44% in 1990 to 45.2% in 1991, while Canadian control rose from 40.9% to 42.8%. The increases were due to the purchase by Canadian residents of shares previously held by non-residents and the purchase of producing assets by Canadian-controlled companies from foreign-controlled companies. Canadian ownership of upstream plus downstream revenues slipped by 0.2 of a percentage point to 45.5% in 1991, while Canadian control decreased 0.1 of a percentage point to 38%.

Research and Development Activities

- 'In-house' R&D expenditures fell 5% to $176 million in 1991. Contract work performed by others totalled $160 million, up 29% from 1990.

1

Financial Performance

Total Operations: Net Income and Cash Flow

Petroleum industry revenues decreased 12% to $51.3 billion in 1991 over 1990. While upstream revenues fell 14% as a result of lower crude oil and marketable natural gas prices, downstream revenues dropped 12% due to reduced demand and the replacement of the Federal Sales Tax (FST) by the Goods and Services Tax (GST). While the FST was included in both revenues and expenses, the GST has been excluded from companies' revenues and expenses in accordance with generally accepted accounting principles. Consequently, a discontinuity in downstream revenue levels exists between the two years.

Net income from total operations fell $4.7 billion from a profit of $2.3 billion in 1990 to a loss of $2.4 billion in 1991. All industry segments recorded lower profits. Net income from upstream operations dropped $2.9 billion from a profit of $1.7 billion to a loss of $1.2 billion, largely due to asset write-downs following ceiling tests taken in response to lower marketable natural gas prices by companies employing the full cost accounting method. Also, net income was affected by current charges for future removal and site restoration.

Downstream net income dropped $1.1 billion from a profit of $505 million in 1990 to a loss of $600 million in 1991 as a result of a decline of $870 million in the net income of the oil products segment, and a fall of $230 million in the petrochemical segment's net income (Appendix B9).

Gains on the sale of assets in 1990 kept 'Other Canadian' operations' net loss for that period to $115 million. By contrast, write-offs following the sale of assets in 1991 resulted in higher losses of $460 million. Profits from foreign operations fell $215 million from a profit of $155 million in 1990 to a loss of $60 million in 1991, largely due to write-offs.

Internal cash flow from all business segments decreased 22% ($2.1 billion) to $7.6 billion. The cash flow decline was caused by a decrease in total revenues of $6.8 billion (12%). This decrease more than matched lower feedstock costs of 3% and lower operating costs of 1%. However, more substantial declines occurred with other costs such as interest expenses (down 14%) and federal sales and excise taxes (down 37%). Current income taxes fell 71% to $460 million in 1991.

Table 1.1
Overview of Total Operations[a]
in billions of dollars

	1990	1991	Change	Change %
Total Revenues	**58.1**	**51.3**	**- 6.8**	**- 12**
less:				
Operating Costs	13.5	13.4	- 0.1	- 1
Interest Expenses	2.5	2.1	- 0.4	- 14
Non-Income Taxes & Royalties	8.6	6.0	- 2.6	- 30
Other Cash Expenses	22.3	21.7	- 0.6	- 3
Current Income Taxes				
Federal[b]	1.3	0.5	- 0.8	- 65
Provincial	0.3	—	- 0.3	- 99
Internal Cash Flow	**9.7**	**7.6**	**- 2.1**	**- 22**
less:				
Write-offs[c]	7.3	10.5	3.2	43
Deferred Taxes	0.1	- 0.6	- 0.7	—
Net Income before Extraordinary Items	2.3	- 2.3	- 4.6	—
Extraordinary Items	—	—	—	—
Net Income	**2.3**	**- 2.4**	**- 4.7**	**—**

(a) Figures may not add due to rounding. See Appendix B1 for detail by operating segment.
(b) Federal Income Tax includes Large Corporations Tax.
(c) The components of 'write-offs' are non-cash charges and exploration and development expenditures charged to current operations.

Net Income by Sector

Net income for the petroleum industry fell $4.7 billion, from a profit of $2.3 billion in 1990 to a loss of $2.4 billion in 1991. Net income of Canadian-controlled companies declined $2.2 billion to a loss of $1.2 billion and, net income of foreign-controlled companies dropped $2.4 billion to a loss of $1.2 billion.

Canadian-controlled companies' net income decreases from upstream, downstream and foreign operations more than offset a slight improvement in 'Other Canadian' operations. All business segments reported net losses in 1991. The poor results were due, in part, to lower revenues caused by a drop in crude oil and marketable natural gas prices and a decline in demand for oil products. In addition, the lower marketable natural gas prices resulted in higher ceiling test[1] write-offs taken by companies which employ the full cost accounting method. These write-offs, together with site restoration costs and oil products' asset write-downs, resulted in an increase in non-cash charges of $1.7 billion. These factors, coupled with higher operating costs and a small decrease in feedstock costs (cost of goods sold), more than offset reduced federal sales and excise taxes[2], interest charges, and current and deferred income taxes. Cash flow for this sector dropped 24% to $3.3 billion in 1991 over 1990 (Appendix B6).

Foreign-controlled companies reported lower net income for all business activities. The impact of a decrease in overall revenues and higher non-cash charges more than offset lower current and deferred income taxes, the elimination of the FST and lower interest charges. Also, relative to the decline in revenues, the much smaller drops in feedstock and operating costs reduced net income.

The $1.4 billion increase in non-cash charges was attributable to a number of factors. Foreign-controlled companies reported write-downs following the sale of non-core assets, site restoration costs and ceiling test write-offs in 1991. By contrast, a number of companies reported gains on the sale of assets as negative write-offs in 1990, reducing non-cash charges to particularly low levels (Appendix B7).

(1) Under generally accepted accounting principles in Canada, full cost accounting companies compare capitalized costs at the company level to expected future net revenues using prices at year end. Any shortfall from the recorded underlying assets must be written off.

(2) The decline is due to the elimination of the Federal Sales Tax (FST) and its replacement by the Goods and Services Tax (GST). While the FST was included in industry revenues and expenses, the GST is not.

Table 1.2
Net Income by Sector and Segment
in billions of dollars

	1990	1991	Change	%
Canadian-Controlled Companies				
Upstream	0.8	– 0.6	– 1.4	—
Downstream	0.3	– 0.5	– 0.8	—
Other [a]	—	– 0.1	– 0.1	—
Total Canadian-Controlled	**1.0**	**– 1.2**	**– 2.2**	**—**
Foreign-Controlled Companies				
Upstream	0.9	– 0.7	– 1.6	—
Downstream	0.2	– 0.1	– 0.3	—
Other [a]	0.1	– 0.4	– 0.5	—
Total Foreign-Controlled	**1.2**	**– 1.2**	**– 2.4**	**—**
Total Industry	**2.3**	**– 2.4**	**– 4.7**	**—**

(a) Comprises net income generated by foreign activities and 'Other Canadian' operations. For more detail see Appendices A12, B6 and B7.

Rates of Return

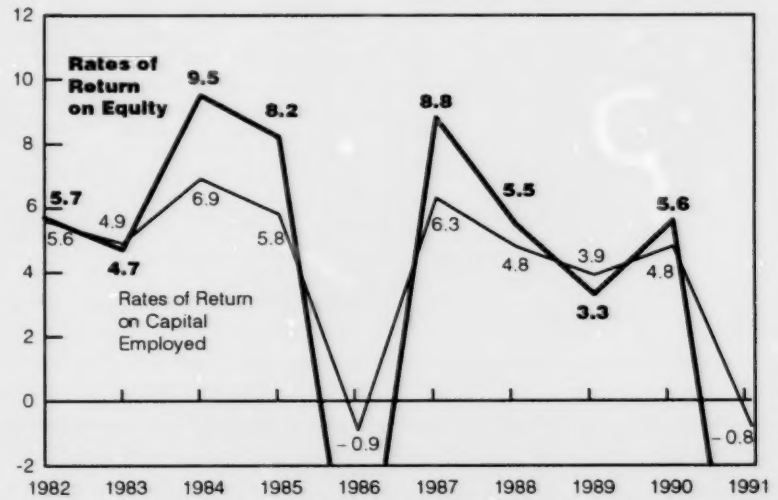
Return on Equity

The rate of return on average shareholders' equity for the total Canadian petroleum industry was negative 6% in 1991 against positive 5.6% in 1990. The reported decline in profitability was caused by lower revenues, and higher operating costs and non-cash charges. However, the industry's average rate of return on equity for the five-year period ending in 1991 increased to 3.3% from an average of 3.2% for the period ending in 1990 (Appendix A13). The five-year average ending in 1990 includes the results for 1986 which were even lower than those for 1991.

With a loss of $1.2 billion in 1991, Canadian-controlled companies recorded negative 6.1% return on equity.

Foreign-controlled companies, which also registered a loss of $1.2 billion, had negative 6% return on equity in 1991.

Chart 1.1
Rates of Return: Petroleum Industry
in percent



Rates of Return on equity extends to – 7.6 for 1986 and to – 6.0 for 1991

Table 1.3
Rates of Return by Sector and Segment
in percent

	Canadian-Controlled		Foreign-Controlled		Total Industry	
	1990	1991	1990	1991	1990	1991
Return on Equity						
Total Operations	5.4	– 6.1	5.7	– 6.0	5.6	– 6.0
Return on Capital Employed						
Total Operations	5.3	– 0.9	4.5	– 0.8	4.8	– 0.8
Canadian Operations	5.4	– 0.7	4.4	– 0.9	4.8	– 0.8
Upstream Operations	5.1	– 0.3	4.2	– 0.9	4.6	– 0.6
Downstream Operations[a]	5.0	– 7.1	2.1	—	3.2	– 2.8

(a) Downstream, in this table, represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.

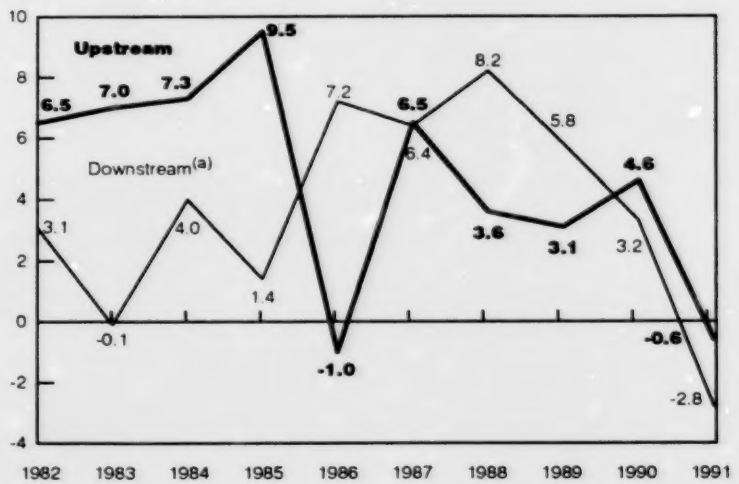
Return On Capital Employed

The return on average capital employed by the Canadian petroleum industry in 1991 declined to negative 0.8% from positive 4.8% in 1990. The return on capital employed averaged 3.8% for the five-year period ending in 1991, unchanged from the rate at the end of 1990. The return on capital employed in 1986 was only fractionally below that of 1991, thereby yielding no change between the two five-year periods. Upstream return on capital employed declined to negative 0.6% from positive 4.6% in 1990, while the downstream return dropped to negative 2.8% in 1991 from positive 3.2% in 1990.

Foreign-controlled companies reported negative 0.8% return on capital employed for total operations in 1991, down from 4.5% in 1990. The upstream segment of this sector saw its return on capital employed decline from 4.2% to negative 0.9% in 1991, while the downstream return fell from 2.1% in 1990 to zero in 1991.

The *Canadian-controlled* sector's rate of return on capital employed fell to negative 0.9% in 1991 from 5.3% in 1990. The rate of return on upstream capital employed dropped to negative 0.3% from 5.1% in 1990. Downstream rate of return on capital employed fell to negative 7.1% in 1991 from 5% in 1990.

Chart 1.2
Rates of Return on Capital Employed: Upstream and Downstream
in percent



(a) Oil products operations.

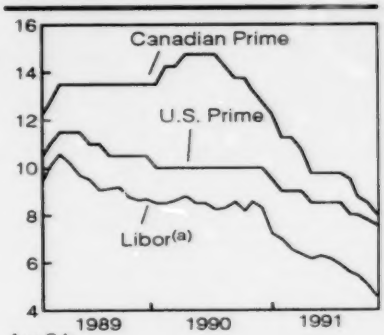
Interest Coverage[1]

Net income before taxes and interest was negative $290 million in 1991 compared with the $6.5 billion in 1990. In 1991, it was impossible to cover any interest charges with the net income before interest and taxes. This compares with a coverage of 2.5 times in 1990. This deterioration in interest coverage was caused by the $6.8 billion decrease in industry income before interest and taxes, a drop which was only partially offset by a 13% ($350 million) decrease in overall interest charges. Lower domestic and foreign interest rates in 1991 brought about a decrease in interest charges despite increases in long-term debt in 1991.

Net income before taxes and interest for Canadian-controlled companies was negative $305 million in 1991 — down $3.1 billion from the level of $2.8 billion

(1) This analysis of interest coverage relates to total industry activity since there is neither consistency nor uniformity in the way companies allocate interest expenses among the various business segments – upstream, downstream, 'Other Canadian' and foreign.

Chart 1.3
Interest Rates: Canadian and U.S. Prime Rates and Libor
in percent

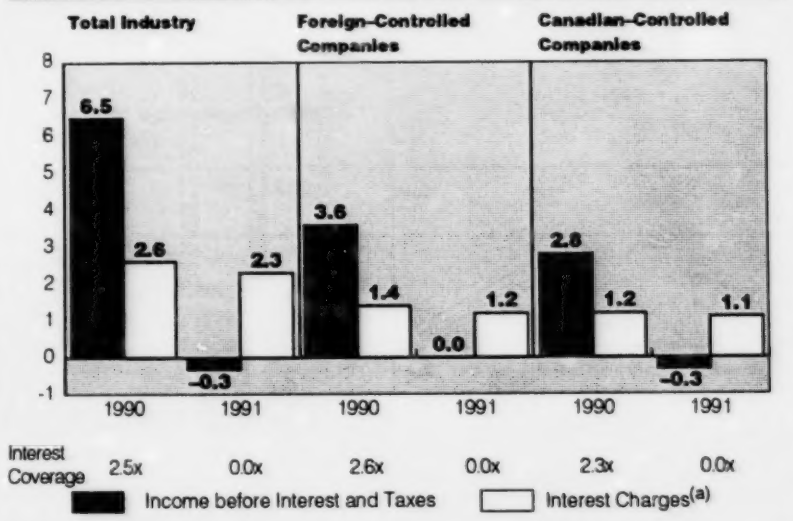


	1989	1990	1991
Avg. Cdn. Prime	13.33	14.06	9.94
Avg. U.S. Prime	10.88	10.00	8.38
Avg. Libor	9.41	8.46	6.02

Source: Bank of Canada

(a) The London Inter-Bank Offer Rate (LIBOR) is defined as the rate at which funds are offered in London to first-class international banks.

Chart 1.4
Comparison of Interest Charges with Income before Interest and Taxes
in billions of dollars



(a) Interest charges shown include both expensed and capitalized amounts. See Appendix A18 for more detail.

recorded in 1990. Interest charges decreased 14% to $1.1 billion, primarily caused by repayment of long-term debt in 1990 following the sale of assets and lower domestic and foreign interest rates. However, due largely to asset write-offs and lower prices, net income before taxes and interest was insufficient to cover interest in 1991, which compared with an interest coverage for this sector of 2.3 times in 1990.

Foreign-controlled companies' interest coverage also fell to zero times in 1991, from 2.6 times in 1990 as a result of a $3.6 billion decrease in income before taxes and interest. Interest charges declined by 13% due to lower interest rates.

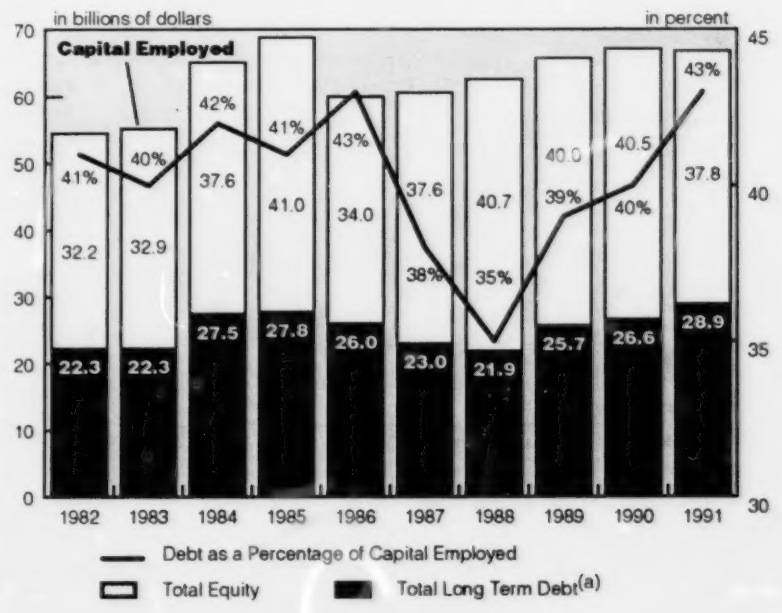
Capital Employed

Long-term debt as a percentage of capital employed was 43% in 1991, up from 40% recorded at the end of 1990. This change resulted from the combination of increased long-term debt and reduced equity (Appendix B13).

Long-term debt increased in 1991, partially as a result of a company drawing on its line of credit and investing the capital in short-term money instruments. In addition, long-term debt rose following financial and operational reorganizations. Also, long-term debt was raised to finance major capital projects. Other long-term liabilities, included in long-term debt, rose as a result of provisions for future removal and site restoration costs.

Shareholders' equity declined as a result of the redemption of preferred shares and a drop in retained earnings. The latter reflects the net loss registered by the industry in 1991.

Chart 1.5
Comparison of Long-Term Debt to Capital Employed



(a) Includes other long-term liabilities.

Net Income by Company Group

Integrateds and Refiners

A total of 16 companies grouped into the category 'integrateds and refiners' made up almost all of the downstream segment in terms of revenues, and accounted for 30% of upstream revenues. Net income for the group decreased $2.1 billion from a profit of $1.2 billion in 1990 to a loss of $925 million in 1991.

While all business segments recorded reduced profits, declines were particularly large for the upstream, downstream and 'Other Canadian' operations. Upstream profits fell as a result of lower crude oil and marketable gas prices, while downstream net income dropped due to lower demand for petroleum products, refinery write-downs, and a relatively smaller decrease in cost of goods sold (which includes refinery maintenance and operating costs). The drop in profits for 'Other Canadian' operations was due to a combination of gains recorded on the sale of assets in 1990, against write-offs occurring in 1991. Interest charges declined due to lower interest rates (Appendix B2).

Over the years, integrated companies in this sector — having both upstream and downstream operations — have raised a considerable amount of debt for takeover activities and for capital spending. The associated interest charges have been allocated to 'Other Canadian' operations resulting in lower profits in this industry segment. Had the interest charges been distributed more evenly by industry segment — rather than as a corporate expense — net income for both upstream and downstream operations would have been lower.

Overall internal cash flow for this company group declined 27% ($905 million) to $2.4 billion in 1991 over 1990.

Oil and Gas Producers

The 138 'oil and gas producers' are active almost exclusively in upstream operations. Net income declined $2.4 billion from a profit of $1 billion in 1990 to a loss of $1.4 billion in 1991. The fall in profits in upstream, foreign and 'Other Canadian' operations more than offset improvements in the smaller downstream activities.

The decrease in the group's net income resulted from lower revenues together with increases in operating costs and non-cash charges. The latter increase was due to high ceiling test write-offs taken by companies (mainly Canadian-controlled and juniors) which employ the full cost accounting method. Non-cash charges of oil and gas producers rose $1.8 billion, mainly due to the impact of the ceiling test. Internal cash flow decreased 20% ($1.3 billion) to $5.1 billion in 1991 over 1990 (Appendices B3 to B5).

Table 1.4
Net Income by Company Group
in billions of dollars

	1990	1991	Change	Change %
Integrateds and Refiners				
Upstream	1.0	0.1	- 0.9	- 89
Downstream	0.5	- 0.6	- 1.1	—
Other [a]	- 0.2	- 0.4	- 0.2	—
Total Integrateds and Refiners	**1.2**	**- 0.9**	**- 2.1**	**—**
Oil and Gas Producers				
Upstream	0.8	- 1.3	- 2.1	—
Downstream	—	—	—	79
Other [a]	0.3	- 0.1	- 0.4	—
Total Producers	**1.0**	**- 1.4**	**- 2.4**	**—**
Total Industry	**2.3**	**- 2.4**	**- 4.7**	**—**

(a) Comprises net income generated by foreign activities and 'Other Canadian' operations. For more detail see Appendices B2 and B5.

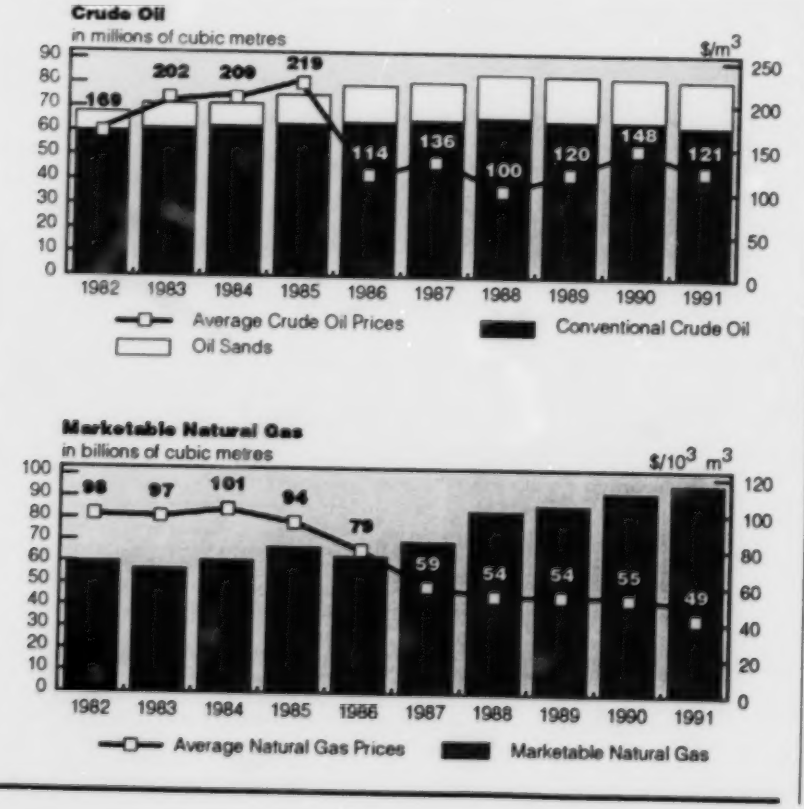
Upstream Segment

Revenues from upstream operations fell 14% ($2.8 billion) to $18.1 billion in 1991. The impact of a 1% drop in crude oil production together with lower realized crude oil prices[1] in 1991 resulted in a crude oil revenue decrease of $2.4 billion (Appendix B15). The start of the Gulf war saw crude oil prices fall by about one-third following their unusually high levels in the prior five months. Also, the price differential between light and heavy crudes widened.

A drop in production of conventional light and medium crude oil was almost offset by increases in production of heavier grades and synthetic crude oil. A 4% increase in the production of marketable natural gas was more than offset by the impact of falling prices, resulting in a drop of natural gas revenues of $370 million. The fall in natural gas prices reflects the continuation of surplus supplies in major markets. Also, lower production and prices for gas plant liquids resulted in a decrease in revenues of $200 million. Sulphur revenues were unchanged in

(1) Crude oil prices realized by Canadian producers are a reflection of the opposing influences of lower international prices and a stronger Canadian dollar relative to the U.S. dollar. International oil prices are generally quoted in U.S. dollars and, as the Canadian dollar strengthens, the Canadian dollar value of oil prices declines. The decrease in the international oil price (Chart 1.7) together with the rise in the value of the Canadian dollar (Chart 1.8) had a particularly negative impact on the level of prices realized by Canadian producers.

Chart 1.6
Oil and Gas Production and Prices



1991 over 1990. Higher 'All Other Revenues' of almost $200 million resulted from crude oil hedging activity in the first half of 1991.

The average price received for crude oil (including production from oil sands) during 1991 was down 18% from 1990, to $121 per m^3 ($19.17 per bbl) from $148 per m^3 ($23.52 per bbl). Prices for natural gas fell 11% in 1991 to an average of $48.58 per 10^3m^3 ($1.38 per Mcf) over 1990 (Appendices A4 and A5). The 1991 price for marketable natural gas was at its lowest level in well over a decade.

Upstream net income fell $2.9 billion from a profit of $1.7 billion in 1990 to a loss of $1.2 billion in 1991. The reduction in net income was caused by the $2.8 billion shortfall in revenues together with increases of $1.9 billion in non-cash charges (largely ceiling test and other write-offs) and $245 million in operating costs, which more than offset reduced royalty expenses ($580 million), current income taxes ($420 million) and deferred income taxes ($855 million).

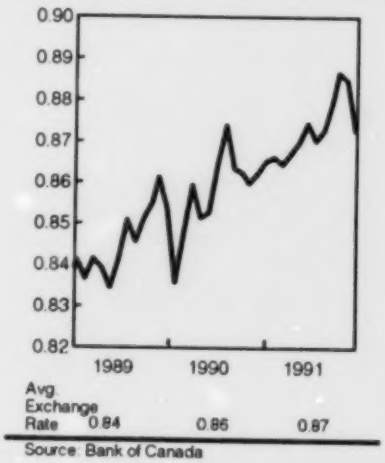
Internal cash flow for the upstream segment declined 24% ($1.9 billion) to $6.2 billion in 1991 over 1990 (Appendices B1 to B8).

Canadian-controlled companies' upstream net income fell $1.4 billion from a profit of $800 million in 1990 to a loss of $580 million in 1991. Lower revenues of $845 million together with higher non-cash charges of $975 million and higher operating costs of $205 million more than offset lower royalties ($170 million), deferred income taxes ($345 million) and current income taxes ($60 million). Cash flow, unaffected by non-cash charges and deferred income taxes, fell 21% to $2.8 billion in 1991 over 1990 (Appendix B6).

Chart 1.7
Crude Oil Prices: West Texas Intermediate (WTI)
in $US/bbl

Source: International Oil Markets Division, EMR

Chart 1.8
Exchange Rates: Canadian vs. U.S. Dollar



Source: Bank of Canada

Foreign-controlled companies' upstream profits fell $1.6 billion from a profit of $910 million to a loss of $665 million in 1991. The drop was due to lower revenues coupled with higher non-cash charges and operating costs which more than offset lower royalties, and current and deferred income taxes. Cash flow decreased 25% to $3.5 billion in 1991 over 1990 (Appendix B7).

Chart 1.9
Upstream Income Data
in billions of dollars

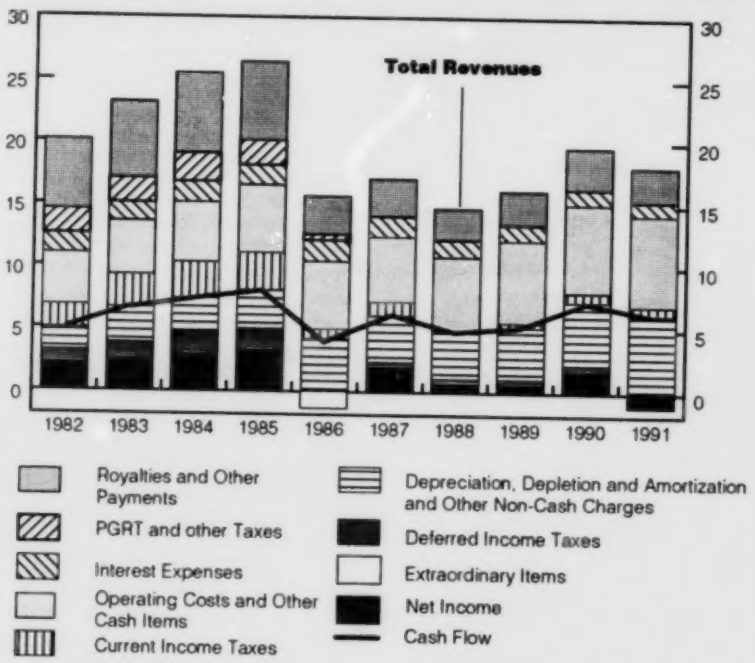


Table 1.5
Upstream Financial Performance
in billions of dollars

	1990	1991	Change	Change %
Total Revenues	**20.9**	**18.1**	**- 2.8**	**- 14**
less:				
Operating Costs	7.0	7.2	0.2	4
Interest	1.3	1.2	- 0.1	- 10
Royalties, Taxes	3.3	2.7	- 0.6	- 18
Other Expenses	6.0	7.9	1.9	32
Income Before Taxes	**3.4**	**- 0.9**	**- 4.3**	**—**
Current Taxes	1.1	0.7	- 0.4	- 37
Deferred Taxes	0.5	- 0.3	- 0.8	—
Net Income before Extraordinary Items	1.7	- 1.3	- 3.0	—
Extraordinary Items	—	—	—	—
Net Income	**1.7**	**- 1.2**	**- 2.9**	**—**

Downstream Segment

Oil Products Operations

Revenues from refining and marketing of oil products decreased 12% to $25.6 billion in 1991 as a result of a decline in overall Canadian demand and the replacement of the FST by the GST. Net income fell $870 million, from a profit of $240 million in 1990 to a net loss of $635 million in 1991. The large drop in profits, particularly in the first half of 1991, occurred as a result of events in the Persian Gulf. Crude oil prices rose sharply in the last five months of 1990 and the first part of January 1991. The oil products industry was left with large inventories produced with high cost crude oil during a period of weak demand; companies were unable to recover the full cost of their inventories.

Lower revenues, together with a near doubling of non-cash charges and comparatively smaller decreases of 3% in cost of goods sold (which includes refinery maintenance and operating costs), and distribution and selling costs, more than offset lower current and deferred income taxes. The large increase in non-cash charges reflects the write-down of property, plant and equipment following the shut-down of refineries.

On January 1, 1991 the GST replaced the FST. The GST, a 7% tax collected at the time of the sale, has been excluded from companies' revenues and expenses in accordance with generally accepted accounting principles. By contrast, the FST was included in both revenues and expenses. Consequently, a discontinuity in both the revenue and the tax levels exists between the two periods.

Cash flow for oil products operations decreased 26% ($230 million) to $650 million in 1991 over 1990 (Appendix B9).

Table 1.6
Oil Products: Financial Performance and Profit Margins

	1990		1991		Change
	$ millions	¢/litre	$ millions	¢/litre	¢/litre
Gross Sales	**27879**	**32.01**	**24718**	**28.98**	**- 3.03**
Other Revenues	1118	1.28	919	1.08	- 0.21
Total Revenues	**28997**	**33.29**	**25637**	**30.05**	**- 3.24**
less:					
Federal Sales and Excise Taxes[a]	5121	5.88	3222	3.78	- 2.10
Cost of Goods Sold	17654	20.27	17151	20.11	- 0.16
Gross Profit Margins	**6223**	**7.14**	**5264**	**6.17**	**- 0.97**
less:					
Distribution, Selling and Administrative Expenses	4513	5.18	4317	5.06	- 0.12
Cash Income before Interest and Current Taxes	**1710**	**1.96**	**947**	**1.11**	**- 0.85**
Interest Expenses	307	0.35	284	0.33	- 0.02
Current Income Taxes	520	0.60	13	0.01	- 0.58
Cash Flow	**882**	**1.01**	**650**	**0.76**	**- 0.25**
Depreciation and Other Non-Cash Charges	771	0.89	1435	1.68	0.80
Deferred Income Taxes	- 125	- 0.14	- 214	- 0.25	- 0.11
Extraordinary Items	2	—	- 64	- 0.07	- 0.08
Net Income after Extraordinary Items	**238**	**0.27**	**- 634**	**- 0.74**	**- 1.02**

(a) On January 1, 1991, the federal Goods and Services Tax (GST) replaced the Federal Sales Tax (FST). The GST was not included in gross sales and federal taxes, in accordance with generally accepted accounting principles. FST was included in both revenues and expenses in the 1990 data.

Gross profit margins, defined here as the difference between average sales revenue, and direct taxes and cost of goods sold, decreased to 6.2¢ per litre in 1991 from 7.1¢ per litre in 1990 (Appendices A8 and A21).

Average crude oil refiner acquisition costs by region and related transportation costs are shown in Appendices A6 and A7.

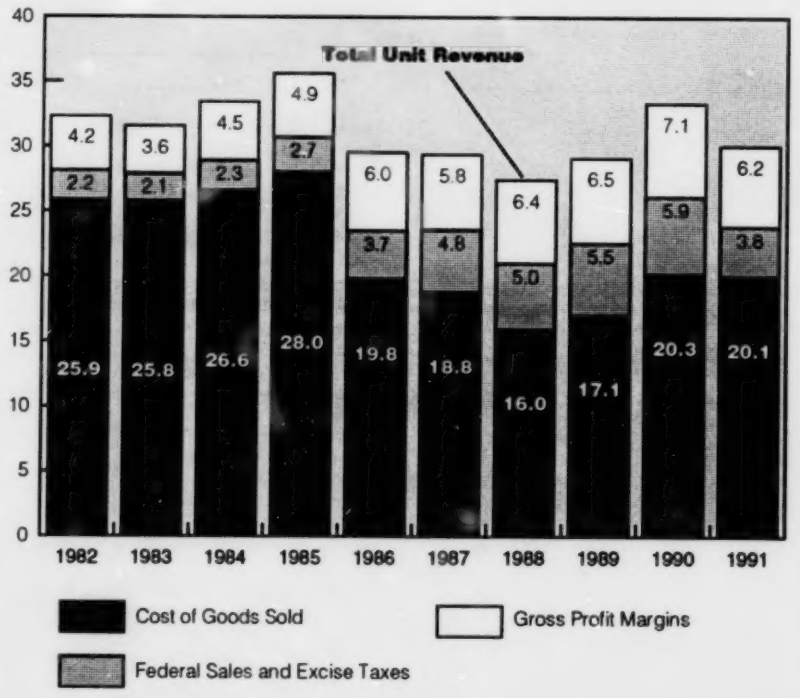
Other Downstream Operations

Net income from other downstream operations, mainly petrochemicals, declined 87% ($230 million) to $35 million in 1991. While both revenues and expenses were down, the 14% decline in revenues against a 7% fall in cost of goods sold resulted in the decline in both net income and cash flow. Internal cash flow fell 52% ($225 million) to $210 million in 1991 (Appendix B9).

Total Downstream

The combined revenues of petroleum products and petrochemical operations decreased 12% to $29 billion. Combined net income fell $1.1 billion from a profit of $505 million in 1990 to a loss of $600 million in 1991, and cash flow fell 35% to $860 million.

Chart 1.10
Oil Products: Gross Profit Margins
in cents per litre



Other Canadian Operations

This business segment, which includes corporate income and expenses, recorded a net loss of $460 million in 1991, compared with a net loss of $115 million in 1990. Gains from the sale of assets in 1990 contrasted with write-down of assets in 1991, resulting in increases to total non-cash charges of $375 million. This increase more than offset reduced interest expenses and operating costs. Cash flow — unaffected by non-cash charges — rose from negative $375 million in 1990 to negative $60 million in 1991.

Significant corporate costs and intercompany profit eliminations were recorded in both 1990 and 1991, resulting in negative current taxes. Also, as noted in previous Monitoring Reports, many companies treat financing activities and thus interest expenses as a corporate function, by definition included in 'Other Canadian' operations. Although a large number of companies allocate interest charges to other segments, 31% of the industry's total interest expenses are charged to this segment which itself accounts for only 4% of total industry revenues.

Foreign Operations

Net income from foreign operations declined $215 million from a profit of $155 million in 1990 to a loss of $60 million in 1991. A 6% increase in revenues was more than offset by increases in non-cash charges, cost of goods sold and in operating costs. Foreign activities of Canadian petroleum companies are largely oil and gas production operations. Cash flow fell 16% to $525 million in 1991 (Appendix B1).

Chart 1.11
Federal Sales and Excise Taxes on Regular Unleaded Gasoline
in cents per litre

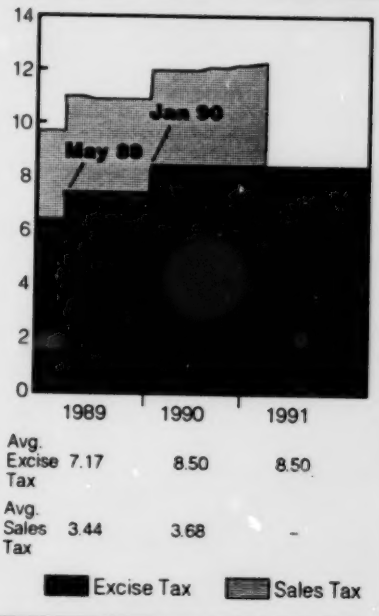


Table 1.7
Downstream Financial Performance by Subsegment
in millions of dollars

	Net Income			Cash Flow		
	1990	1991	Change %	1990	1991	Change %
Oil Products	238	- 634	—	882	650	- 26
Petrochemicals	265	34	- 87	437	210	- 52
Total Downstream	503	- 600	—	1319	860	- 35

2

Sources and Uses of Funds

Overview[1]

Funds available to the petroleum industry prior to discretionary uses increased 1% ($105 million) to $10.4 billion in 1991. This resulted from an increase of $2.3 billion in net external sources, more than offsetting a decline of $2.1 billion in internal cash flow. Net external sources provided $2.8 billion in 1991 vs. $540 million in 1990.

New long-term debt exceeded redemptions by $1.7 billion in 1991, compared with $470 million of net repayments in 1990. Net new equity issues were $1.1 billion in 1991 vs. $1 billion of new equity, net of repurchases, in 1990.

During 1991, net capital outlays were 9% higher at $9.5 billion than in 1990. Dividend payments fell 19% from $1.7 billion to $1.4 billion. In 1990 and 1991, the impact of the sale of assets can be seen in the excess of 'All Other Sources' over 'All Other Uses'.

The net decrease in working capital of $40 million in 1990 compares with a net increase of $5 million in 1991 (Appendix B10).

(1) Sources and uses of funds for an individual company are reported on a net basis. For example, a company raising and repaying debt would report only the net amount. Similarly, companies report only the net amount with regard to changes in equity and in working capital. For the industry as a whole, this process of netting the aggregates to show the industry's net draw of funds from, or net contribution of funds to, other sectors of the economy is continued. However, these aggregates are shown separately in Table 2.2, to allow the reader to distinguish at the aggregate level between new long-term debt and repayment of debt, etc.

Table 2.1
Sources and Uses of Funds (Net)
in billions of dollars

	1990	1991	Change	Change %
Internal Sources				
Net Income before Extraordinary Items	2.3	– 2.3	– 4.6	—
Non-Cash Items	7.4	9.8	2.4	33
Internal Cash Flow	**9.7**	**7.6**	**– 2.1**	**– 22**
Net External Sources				
New Long-Term Debt, Net of Repayments	– 0.5	1.7	2.2	—
New Equity, Net of Repurchases	1.0	1.1	0.1	13
Net External Sources	**0.5**	**2.8**	**2.3**	**—**
Net Sources	**10.3**	**10.4**	**0.1**	**1**
Discretionary Uses				
Net Capital Expenditures	8.7	9.5	0.8	9
Dividend Payments	1.7	1.4	– 0.3	– 19
All Other Uses, Net of Other Sources	– 0.1	– 0.5	– 0.4	—
Net Uses	**10.3**	**10.4**	**0.1**	**1**
Net Working Capital Change	**—**	**—**	**—**	**—**

Sources and Uses of Funds (Gross)

New long-term debt was $3.4 billion, up $760 million from 1990. A portion of this new long-term debt was raised to redeem equity. Repayment of debt fell $1.4 billion to $1.7 billion. New share issues increased $415 million to $2.1 billion, while equity reduction rose $285 million to $975 million in 1991.

Reported individual decreases of working capital totalled $2.4 billion in 1991, up $735 million from 1990. Individually reported increases in working capital also totalled $2.4 billion in 1991 compared to $1.6 billion in 1990.

Funds reported as 'All Other Sources' represent, in part, proceeds from the sale of oil and gas properties. 'All Other Sources' generated $3.5 billion in 1991 vs. $4.1 billion in 1990. 'All Other Uses' of funds fell from $4 billion in 1990 to $3 billion in 1991, largely as a result of less funds used for takeover activity. Also, funds used for the purchase of assets decreased to $750 million from $1.4 billion in 1990.

Net capital expenditures increased 9% ($775 million) to $9.5 billion in 1991 over 1990 (for further detail see Table 2.4).

Table 2.2
Selected Categories of Sources and Uses of Funds[a]
in billions of dollars

	1990	1991	Change	Change %
New Long-term Debt[b]	2.7	3.4	0.7	29
Repayment of Long-term Debt[c]	3.1	1.7	- 1.4	- 44
Long-term Debt, Net of Repayments	**- 0.5**	**1.7**	**2.2**	**—**
New Equity[b]	1.7	2.1	0.4	25
Repurchase of Equity[c]	0.7	1.0	0.3	42
Net Equity, Net of Repurchases	**1.0**	**1.1**	**0.1**	**13**
Working Capital Increase[c]	1.6	2.4	0.8	49
Working Capital Decrease[b]	1.6	2.4	0.8	45
Net Working Capital Change	**—**	**—**	**—**	**—**
All Other Sources[d]	4.1	3.5	- 0.6	- 15
All Other Uses[e]	4.0	3.0	- 1.0	- 25
Other Uses Net of Other Sources	**- 0.1**	**- 0.5**	**- 0.4**	**—**
Total Capital Outlays	8.8	9.7	0.9	10
Incentive Grants and Other Receipts	0.1	0.2	0.1	91
Net Capital Expenditures	**8.7**	**9.5**	**0.8**	**9**

(a) Appendix B10 shows more detail.
(b) Represents amounts of new long-term debt, new equity, or funds from drawing down working capital by those companies that reported deriving net funds from these sources.
(c) Represents the net application of funds to repay long-term debt, repurchase equity, or to build up working capital by those companies that reported using funds for these purposes.
(d) Includes unusual gains; unusual losses are included in 'All Other Uses'.
(e) Mainly funds for acquisitions of plant and property from other corporations and for corporate takeovers.

Internal Cash Flow

Petroleum industry internal cash flow decreased 22% ($2.1 billion) to $7.6 billion in 1991. Significantly lower revenues for both upstream and downstream operations combined with relatively small decreases in cost of goods sold and operating costs to more than offset larger declines in royalties, interest expenses, current income taxes, and federal sales and excise taxes. In the latter case the elimination of the FST reduced both revenue and expenses. The upstream segment recorded a decrease of 24% ($2 billion) to $6.2 billion due to lower crude oil and marketable natural gas prices. Cash flow from downstream operations dropped 35% ($460 million) as lower revenues together with a comparatively small decrease in cost of goods sold (feedstock costs) offset decreased sales and excise taxes and current income taxes. Cash flow of 'Other Canadian' operations rose from a negative $375 million in 1990 to a negative $60 million in 1991, as a result of the lower operating costs, interest charges and current income taxes. Internal cash flow from foreign activities fell 16% to $525 million in 1991.

Canadian-controlled companies' internal cash flow decreased 24% to $3.3 billion in 1991. All business segments, with the exception of the small 'Other Canadian' operations, registered declines.

Foreign-controlled firms' cash flow was down 21% to $4.2 billion, with lower cash flow in upstream, downstream and foreign activities more than offsetting increases in 'Other Canadian' operations.

Table 2.3
Internal Cash Flow by Sector and Segment[a]
in billions of dollars

	1990	1991	Change	Change %
Canadian-Controlled Companies				
Upstream	3.5	2.8	- 0.7	- 21
Downstream	0.6	0.3	- 0.3	- 54
Other [b]	0.2	0.3	0.1	27
Total Canadian-Controlled	**4.4**	**3.3**	**- 1.1**	**- 24**
Foreign-Controlled Companies				
Upstream	4.7	3.5	- 1.2	- 25
Downstream	0.7	0.6	- 0.1	- 17
Other [b]	—	0.2	0.2	398
Total Foreign-Controlled	**5.4**	**4.2**	**- 1.2**	**- 21**
Total Industry				
Upstream	8.2	6.2	- 2.0	- 24
Downstream	1.3	0.9	- 0.4	- 35
Other [b]	0.3	0.5	0.2	84
Grand Total	**9.7**	**7.6**	**- 2.1**	**- 22**

(a) See Appendices B1, B6 and B7 for more detail.
(b) Comprises internal cash flow generated by foreign activities and 'Other Canadian' operations.

Capital Expenditures

Gross capital expenditures in 1991 rose 10% to $9.7 billion over 1990. Domestic expenditures rose 9% to $8.9 billion while outlays abroad rose 24%. Expenditures abroad, as a share of total capital spending, rose one percentage point to 8% of the total in 1991. Upstream expenditures remained the largest component of total capital outlays, accounting for 76% in 1991, up one percentage point from 1990. Downstream expenditures rose 16% and the small component of 'Other' expenditures fell 53%.

Upstream: With the single exception of exploration expenditures, all other upstream categories recorded increases in capital outlays in 1991 over 1990. Exploration outlays declined 14% to $2.3 billion in 1991, reflecting the continued uncertainty over future oil prices which has existed over the past number of years. Capital outlay, for development expenditures rose 4% to $1.1 billion, in an effort to bring new production on stream. Expenditures on production rose 37% to $2.9 billion reflecting increased activity on major projects such as the Caroline gas field development, Hibernia, and Cohasset/ Panuke. Also, increases in spending for the Bi–Provincial Upgrader classified together with oil sands expenditures, accounted for the increase in capital outlays of 44% within the non–conventional area. As a result, upstream capital expenditures increased 12% to $7.4 billion in 1991.

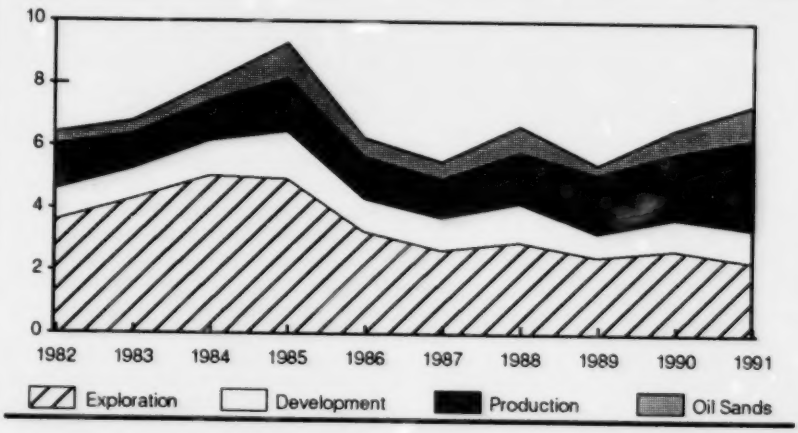
Upstream outlays by Canadian–controlled companies increased 4% while those of foreign–controlled companies rose 21%. As a result, the Canadian–controlled group of companies' share of upstream capital spending fell 4 percentage points to 48% of the total in 1991 (Appendix B11).

Table 2.4
Capital Expenditures[a]
in billions of dollars

	1990	1991	Change		Share of Total 1990	Share of Total 1991
				%	%	%
Upstream						
Exploration	2.7	2.3	- 0.4	- 14	31	24
Development	1.0	1.1	0.1	4	12	11
Production	2.1	2.9	0.8	37	24	30
Non-conventional [b]	0.8	1.1	0.3	44	9	11
Total Upstream	**6.6**	**7.4**	**0.8**	**12**	**75**	**76**
Downstream	1.1	1.3	0.2	16	13	13
Other Energy Related	—	—	—	39	—	—
All Other	0.5	0.2	- 0.3	- 57	5	2
Total Expenditures in Canada [c]	**8.2**	**8.9**	**0.7**	**9**	**93**	**92**
Expenditures Abroad	**0.7**	**0.8**	**0.1**	**24**	**7**	**8**
Total Expenditures	**8.8**	**9.7**	**0.9**	**10**	**100**	**100**
Incentives, Grants and Other Receipts	0.1	0.2	0.1	91		
Net Capital Expenditures	**8.7**	**9.5**	**0.8**	**9**		
Memo Item: Upstream Capital Expenditures (Net of incentive grants and other receipts)	6.5	7.2	0.7	11		

(a) More detail is presented in Appendices B11 and B12.
(b) Includes oil sands, non-conventional heavy oil projects and upgraders.
(c) Includes incentives, grants, tax credits and other receipts.

Chart 2.1
Upstream Expenditures in Canada
in billions of dollars

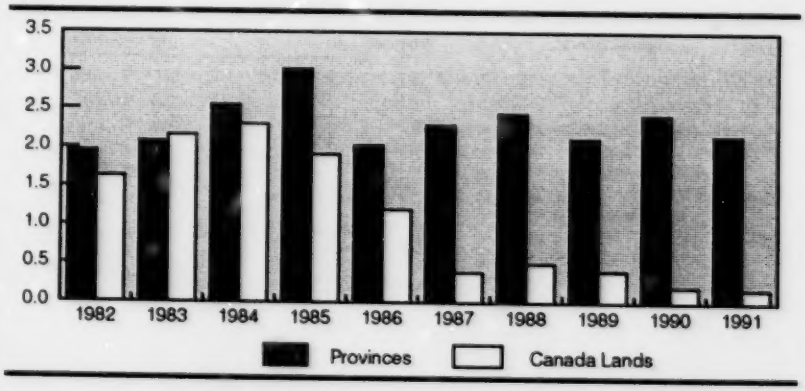


Exploration expenditures in the provinces fell 13% to $2.2 billion, and declined 15% to $175 million on Canada Lands. This produced a 14% decrease in total exploration spending to $2.3 billion. Expenditures on Canada Lands accounted for 7% of the total in 1991, unchanged over 1990.

Exploration outlays by foreign–controlled companies were down 12% in 1991, while those for Canadian–controlled firms fell by 15%. Canadian–controlled companies accounted for 53% of total exploration spending, down one percentage point from 1990 (Appendix B12).

Total exploration outlays grew rapidly between 1981 and 1987. This increase was driven by intense activity on Canada Lands, fuelled by incentives programs.

Chart 2.2
Exploration Expenditures by Location
in billions of dollars



Downstream Expenditures:
Downstream outlays increased 16% to $1.3 billion in 1991. Decreases in expenditures for refineries were more than offset by increased spending on marketing outlets and petrochemical plants.

Energy Mining and All Other:
Expenditures were down 53% in energy mining and in all other areas including those for mining facilities, drilling ships, caissons and drilling rigs. This category of capital outlays may also include capitalized interest.

Reinvestment Rates

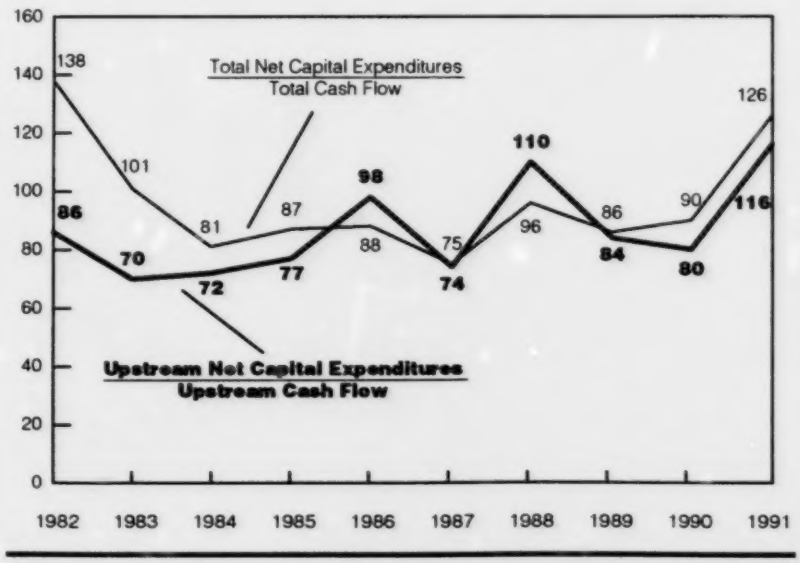
The overall reinvestment rate for the petroleum industry — total net capital expenditures[1] as a percentage of internal cash flow from all business segments — was 126% in 1991, up from 90% in 1990. The 22% reduction in internal cash flow plus the 9% rise in net capital expenditures caused the increase of 36 percentage points in the reinvestment rate (Appendix A15). Much of the increase in capital expenditures relates to major projects such as the Caroline gas field development, Hibernia, Cohasset/ Panuke and the Bi-Provincial Upgrader. Because of their large size, these projects cannot be expected to be financed out of a company's current year cash flow. Financing usually occurs through increased debt or equity.

Both Canadian- and foreign-controlled groups reported major overall increases in their reinvestment rates. The Canadian-controlled companies' total reinvestment rate rose from 101% in 1990 to 135% in 1991, while that of foreign-controlled companies rose from 81% to 118%. A comparison of the two groups in terms of upstream activities gives similar results, with Canadian-controlled companies reinvesting 127% of upstream cash flow (up 30 percentage points) and 107% for foreign-controlled firms (up 40 percentage points).

Upstream capital expenditures (net of incentive grants) accounted for 116% of industry upstream cash flow, up 36 percentage points from the reinvestment rate for 1990. Upstream cash flow decreased 24% while net upstream capital expenditures rose 11%.

(1) Net capital expenditures are defined as gross capital expenditures less incentives, grants, tax credits and insurance receipts.

Chart 2.3
Reinvestment Rates
in percent

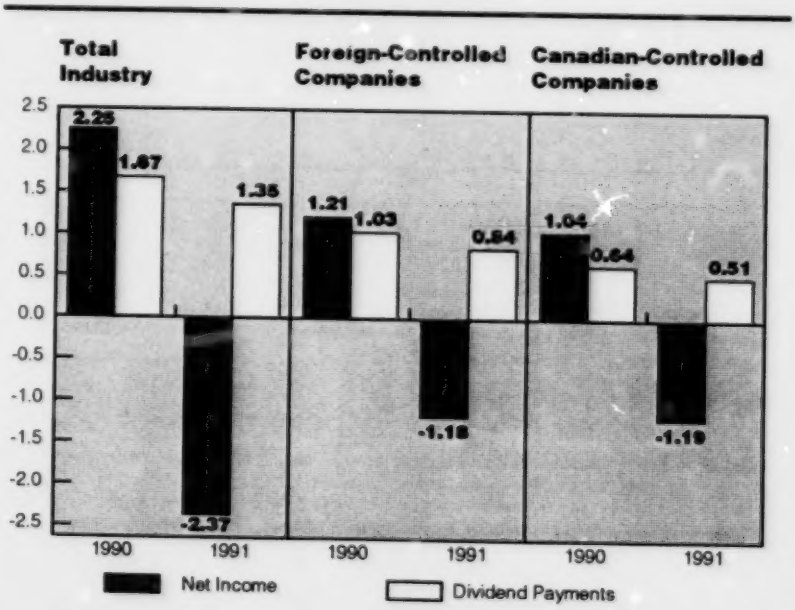


Dividend Payments

Dividend payments by the petroleum industry decreased 19% to $1.4 billion in 1991, while net income fell $4.7 billion for a loss of $2.4 billion. While in most cases companies pay dividends out of profits, the netting of companies reporting losses against those reporting profits may yield unusual results in terms of payout rates, as reflected in the data from 1991. Also, it is recognized that dividend payment policies for any particular company do not necessarily change as a result of one or two poor years.

Dividends paid by Canadian–controlled companies decreased 21% to $515 million, while dividend payments by foreign–controlled companies fell 18% to $840 million (Appendices A19 and B10).

Chart 2.4
Dividend Payments Compared with Net Income
in billions of dollars



3

Comparative Performance: Petroleum and Other Industries

Net Income Comparison

This chapter is intended to provide an overview of the relative and changing importance of the petroleum industry with reference to the total net income picture of all non-financial industries.

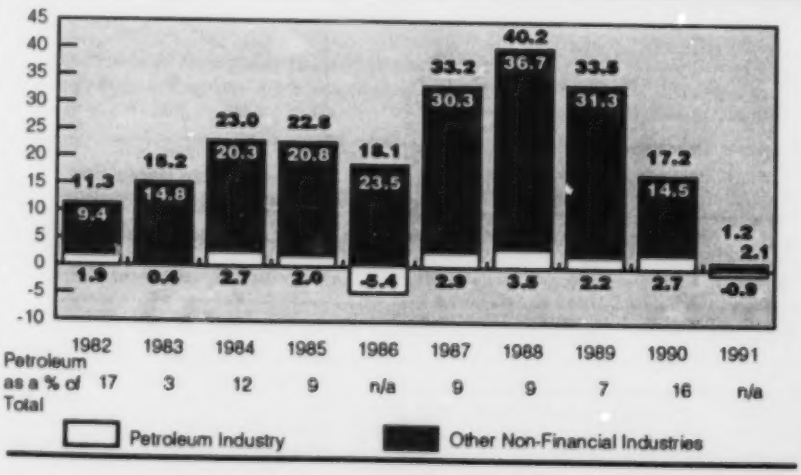
The financial performance of the petroleum sector can be put into perspective by comparing it to that of other sectors of the economy using data from Statistics Canada. It should be noted that the data for non–financial industries shown in prior reports are quite different from the statistics presented here. This is due to modifications to Statistics Canada data as described in 'Note' below.

Table 3.1
Comparison of Net Income: Petroleum Industry vs. All Other Non-Financial Industries
in billions of dollars

	1990	1991	Change	Change %
Total Non-Financial excluding Petroleum	14.5	2.1	- 12.4	- 86
Petroleum	2.7	- 0.9	- 3.6	—
Total Non-financial including Petroleum	17.2	1.2	- 16.0	- 93

Note: The data presented in this section of the report are not precisely comparable with those based on the survey results reported in Chapters 1 and 2. Beginning with the fourth quarter of 1990, a number of changes were introduced by Statistics Canada to their statistical series. The two industrial classifications of 'Mineral Fuels' and 'Petroleum and Coal Products' which together closely approximated the aggregate survey results of upstream and downstream operations, are no longer available. As a result, this chapter now deals with a much broader definition of 'Petroleum' which includes not only upstream and downstream operations, but also wholesaling and retailing activities, contract drilling, petroleum pipelines and other services incidental to petroleum and natural gas production. In addition, while in the past a comparison was made with companies having assets of more than $10 million, this is no longer possible. Instead, the entire non-financial industry is selected for comparison. However, as in the past, the petroleum industry data from Statistics Canada, while covering a greater number of companies exclude government business enterprises as well as the foreign activities of companies originating in Canada. The survey results in the prior two chapters cover the global activities of petroleum companies operating in Canada, including Crown corporations, subject to a minimum size of $10 million in terms of assets or revenues.

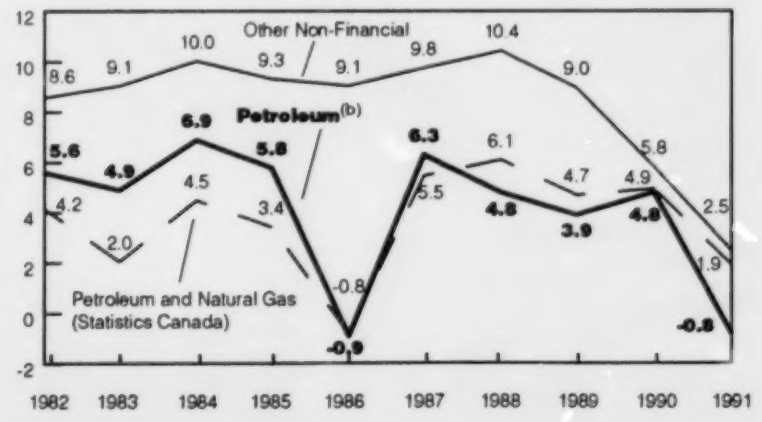
Chart 3.1
Comparison of Net Income: Petroleum Industry vs. All Other Non-Financial Industries
in billions of dollars



Exclusive of Crown corporations, the petroleum industry's net income from Canadian operations after extraordinary items decreased $3.6 billion from a profit of $2.7 billion in 1990 to a loss of $900 million in 1991. This compares with an 86% decrease to $2.1 billion for all other non-financial industries.

The rate of return on capital employed for the petroleum industry fell from 4.9% in 1990 to 1.9% in 1991, and was still below the rate of return for other non-financial industries of 2.5%, down from 5.8% in 1990.

Chart 3.2
Rates of Return on Capital Employed: Petroleum Industry[a] vs. All Other Non-Financial Industries
in percent



(a) Data for the petroleum industry published in Chapters 1 and 2 are not precisely comparable with those of Statistics Canada. The petroleum and natural gas series include industries such as contract drilling, pipelines and other service industries not covered elsewhere in this report.
(b) Data from the Petroleum Monitoring Survey.

Capital Expenditures

Based on Statistics Canada data, petroleum industry capital expenditures[1] increased 10% in 1991 over 1990. However, federal and provincial expenditures on the Bi-Provincial Upgrader are not included within these data. Had they been included, the increase would have been higher.

Capital expenditures of non-financial industries excluding petroleum decreased by 9%. The capital expenditures of the petroleum industry as a proportion of total capital expenditures of all non-financial industries increased by two percentage points to 16% in 1991.

(1) These data differ significantly from those published in Chapter 2 due to Statistics Canada's inclusion of property acquisitions in the category of capital expenditures.

Table 3.2
Comparison of Capital Expenditures: Petroleum Industry vs. All Other Non-Financial Industries
in billions of dollars

	1990	1991	Change	%
1. **Total Non-Financial** excluding Petroleum	**68.7**	**62.8**	**- 5.9**	**- 9**
2. Petroleum	11.1	12.2	1.1	10
3. **Total Non-Financial** including Petroleum	**79.8**	**75.0**	**- 4.8**	**- 6**
4. Line 2 as a % of line 3	14	16		

Source: Statistics Canada, 61-008, Quarterly Financial Statistics for Enterprises. This survey does not include government enterprises. Expenditures are net outlays, excluding capital grants.

4

Ownership and Control Trends

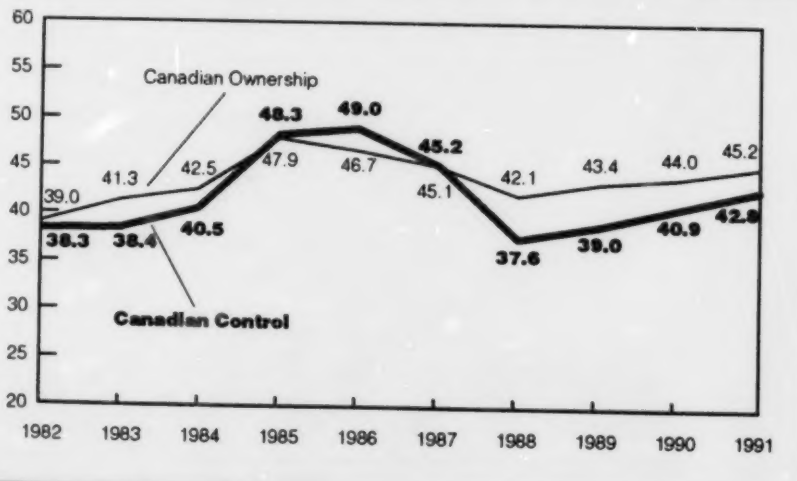
Canadian ownership of upstream revenues increased to 45.2% in 1991 from 44% in 1990, while Canadian control rose from 40.9% to 42.8% in 1991 (Appendix A22).

The increase in Canadian ownership resulted from the purchase by Canadian residents of shares in Canadian companies previously held by non-residents and from the purchase by Canadian companies of foreign-controlled companies or their assets.

The increase in Canadian control resulted from the purchase of assets by Canadian-controlled companies from foreign-controlled companies. In 1990, Canadian-controlled companies accounted for $860 million of the total $1.5 billion of assets purchased. In 1991, they bought $550 million of the $1.2 billion of assets purchased. Although overall upstream revenues fell, asset purchases by Canadian-controlled companies kept their level of revenue decline to a lower rate than their foreign-controlled counterparts (–10% vs. –16%) which resulted in an improved Canadian ownership and control level of upstream revenues in 1991 over 1990.

A closer scrutiny of the ownership of shares held in Canada in the 'book-based system' (BBS) was accomplished for both the 1990 and 1991 data series. Nominee accounts held in this system, primarily at the Canadian Depository for Securities (CDS), have in some cases obscured beneficial ownership. A complete analysis of the CDS position of petroleum companies indicated that a portion of these holdings, previously accorded Canadian ownership status, is beneficially owned by non-Canadians through financial institutions. This would also apply for years prior to 1990, but the extent of this occurrence cannot be quantified. This improved measurement, therefore, creates a discontinuity in the data series. Without the information supplied by the financial institutions, the Canadian ownership of upstream revenues would have shown an additional increase in 1990 of 1.8 percentage points and an increase in 1991 of 1.6 percentage points.

Chart 4.1
Canadian Ownership and Control of Upstream Revenues
in percent



Canadian ownership of upstream plus downstream revenues slipped by 0.2 of a percentage point to 45.5% in 1991, while Canadian control decreased 0.1 of a percentage point to 38%.

The purchase of Nova Corporation's 43% holding in Husky Oil Ltd. by Mr. Li Ka Shing reduced the level of Canadian ownership. Since Husky Oil Ltd. was already classified as being foreign-controlled, the transaction did not affect the level of Canadian control.

Chart 4.2
Canadian Ownership and Control of Upstream plus Downstream Revenues
in percent

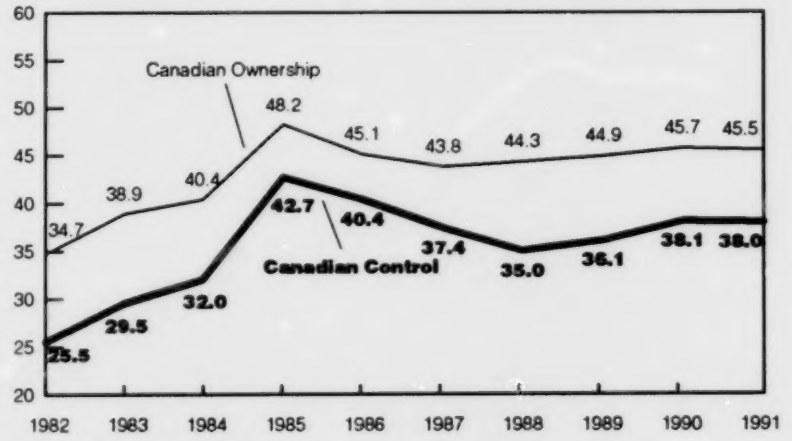


Table 4.1
Canadian Ownership and Control by Country and Sector[a]
in percent

	Ownership		Control	
	1990	1991	1990	1991
United States	38.0	35.6	42.2	41.0
Other Foreign	16.3	18.9	19.7	21.0
Total Foreign	**54.3**	**54.5**	**61.9**	**62.0**
Canadian Public Sector	16.6	13.4	16.7	16.4
Canadian Private Sector	29.1	32.1	21.4	21.6
Total Canadian	**45.7**	**45.5**	**38.1**	**38.0**

(a) Based on upstream plus downstream (petroleum-related) revenues.

5

Research and Development Activities: 1991 vs. 1990

A total of 14 companies, mostly larger firms, reported R&D expenditures in 1991 and in 1990[1]. During 1991 in-house' R&D expenditures fell by 5% to $176 million, while contract work performed by others rose by 29% to $160 million.

'In-house' Expenditures

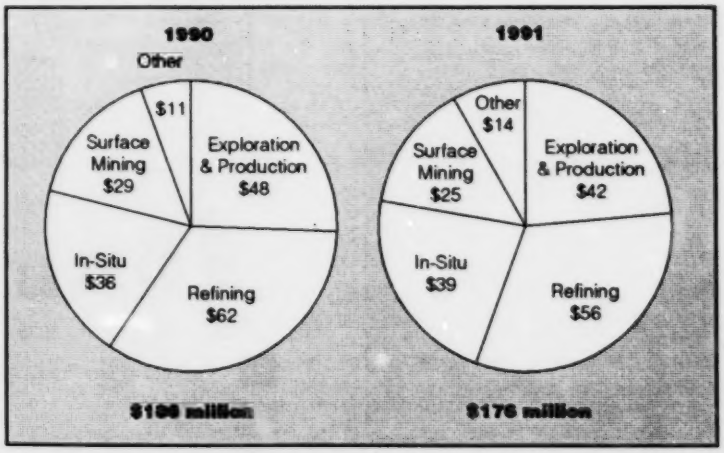
Of the total 'in-house' R&D expenditures of $176 million in 1991, expenditures of a current nature were $143 million, representing a 10% decrease from 1990. The wages and salaries component of current expenditures dropped 15% to $62 million. The balance, $33 million of total 'in-house' expenditures, was spent on capital goods, primarily R&D equipment. The capital expenditures component increased by 19% relative to 1990 levels. Refinery technology R&D remained the largest single component of 'in-house' R&D expenditures at 32%, but decreased in absolute terms by $6 million to $56 million. R&D expenditures related to conventional crude oil and natural gas decreased to $42 million (vs. $48 million in 1990), representing 24% of all 'in-house' R&D expenditures in 1991. In-situ recovery of heavy oil increased by 8% to $39 million, while surface mining decreased by 14% to $25 million.

(1) Data are drawn from responses to two Statistics Canada questionnaires, *Research and Development in Canadian Industry* and *Energy R&D Expenditures by Area of Technology*, made available to the PMA under an agreement pursuant to the Statistics Act. There may be a small element of 'double counting' as the reported amount of 'in-house' R&D may include contract work performed for other petroleum companies.

Table 5.1
Sources of Funds Expended on 'In-House' R&D
in millions of dollars

	1990	1991
Internal	149	145
Parent, affiliated & subsidiary companies	16	10
Government grants & contracts	8	3
R&D performed on behalf of others	13	9
Other	—	9
Total 'In-house' R&D	186	176

Chart 5.1
'In-house' R&D Expenditures by Activity
in millions of dollars



Energy technology R&D, other than that related to oil and gas, rose from $7 million (4%) of total 'in-house' R&D expenditures by major oil and gas enterprises to $10 million (5%) of such expenditures in 1991. Non-energy related R&D expenditures increased by 34% to $5 million in 1991 (Appendix A23).

Total R&D personnel employed by the surveyed companies decreased from 1065 in 1990 to 888 in 1991, continuing a downwards trend in total employment of R&D personnel from a high of 1142 personnel in 1988. The percentage of scientists, engineers and senior R&D administrators increased by 0.7 of a percentage point to 44.6% of all employees engaged in R&D.

Reporting companies provided 82% of the funds allocated to 'in-house' activity as indicated by Table 5.1. The remainder was obtained from federal and provincial government grants, contract work performed for other companies, and from allocations by parent and affiliated companies to Canadian subsidiaries.

The bulk of 'in-house' R&D activity in Canada was conducted in Alberta and Ontario (60% and 39% respectively, of total outlays in 1991). R&D performed in Alberta during 1991 accounted for 42% of R&D personnel employment, while Ontario accounted for 56%.

Chart 5.2
R&D Employment
number of employees

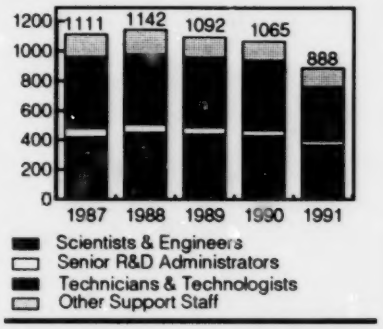
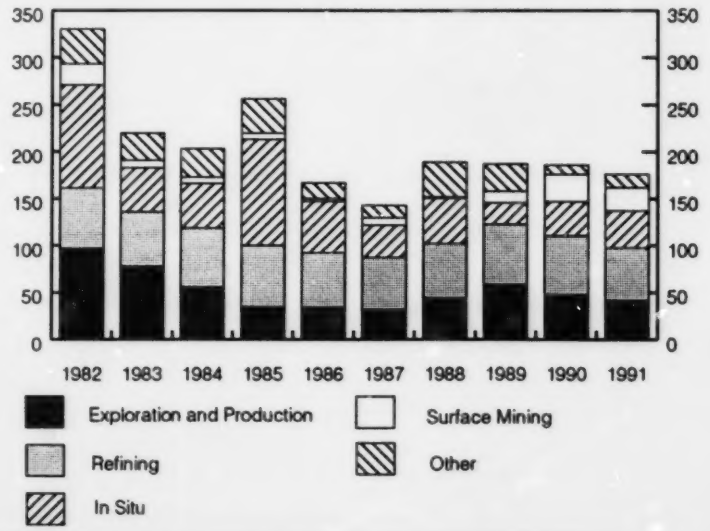


Chart 5.3
'In-house' R&D Expenditures
in millions of dollars



Contract Expenditures

Energy and non-energy related contract R&D expenditures by reporting companies totalled $160 million in 1991, up 29% from 1990. Research performed abroad on behalf of Canadian petroleum companies accounted for 65% of total contract R&D expenditures, a decrease of 6 percentage points over 1990.

Table 5.2
Contract R&D Spending in Canada and Abroad
in millions of dollars

	In Canada		Abroad		Total	
Recipient	1990	1991	1990	1991	1990	1991
Parent and Affiliated Companies	19	22	85	103	104	125
Other Corporations	14	31	3	—	17	31
Research Institutions & Other	3	4	—	—	3	4
Total	36	57	88	103	124	160

Appendices

A

Supplementary Information

A1 Year in Review

1991

January 17
The Paris-based International Energy Agency (IEA) called upon member states to release an additional 2.5m bbl/day of oil onto world oil markets to reduce price volatility. Canada's share of the commitment was 115,000 bbl/day, to be achieved through demand restraint and commercial stockdraw measures.

April 15
Energy, Mines and Resources Canada contributed $1.5 million as part of a multi-departmental, Canadian response to official requests from Qatar and Bahrain to assist in the clean-up of the oil spill following the Persian Gulf War.

July 5
The Minister of Energy, Mines and Resources released the National Energy Board's (NEB) report on the Sarnia-Montreal Pipeline which reviewed the prospects and implications of closure of the facility. The pipeline was drained and filled with inert nitrogen. It will be maintained until it is reactivated at some future date.

October 11
Construction began on the Energy Diversification Research Laboratory (EDRL) in Varennes, Québec. R&D activities at the laboratory will focus on energy technologies that can be commercialized in the short and medium term.

October 29
The Minister of Energy, Mines and Resources tabled the 'National Energy Efficiency and Alternative Energy Act', which is intended to establish national energy efficiency regulations for equipment imported into Canada and traded interprovincially.

November 22
Agreement was reached on the apportionment of financial risk between major players in the Hibernia Offshore oil development project. Production from Hibernia is expected to begin in 1996 and to reach an average production plateau of 110,000 bbl/day.

January 2
The Canada Petroleum Resources Act royalty regulations were published in the Canada Gazette. These became effective on December 12, 1991. The royalty regime promulgated applies to hydrocarbon developments in offshore and onshore areas of federal jurisdiction that are not subject to joint management agreements.

March 25
The Government of Canada rescinded its Oil and Gas Acquisitions Policy which did not allow the sale of Canadian controlled oil and gas assets valued in excess of $5 million, unless the companies were in financial difficulty.

June 6
The Minister of Energy, Mines and Resources and Nova Scotia provincial government representatives participated in the Cohasset Development opening ceremony.

A2 Petroleum Supply and Demand Summary [a] [b]

in thousands of cubic metres per day

	1990	1991	Change %
Production			
Crude Oil	264	264	—
Natural Gas Liquids [c]	50	51	2
Total Production	**314**	**315**	**—**
Net Exports [d]			
Crude Oil	18	30	65
Natural Gas Liquids	19	18	- 4
Refined Products	16	19	19
Total Net Exports	**53**	**67**	**26**
Consumption			
Natural Gas Liquids	39	42	8
Refined Products	243	229	- 6
Total Consumption	**282**	**271**	**- 3**

(a) Petroleum includes conventional and synthetic crude oil and natural gas liquids (propane, butane and ethane) derived from gas processing and gas reprocessing plants. Data on the production, net exports and consumption do not represent a complete supply/demand balance as industry's own use and stock changes are not shown.

(b) Figures represent total industry activity and are derived from a number of sources:
Production — Statistics Canada (Catalogue 26-006)
Net Exports — EMR, Oil and Gas Branch
Consumption — Statistics Canada (Catalogue 45-004)

(c) Does not include refinery production of 8.7 thousand m3/d in 1990 and 9.4 thousand m3/d in 1991.

(d) On a gross basis, crude oil imports (including exchange receipts) in 1990 and 1991 were 86,300 m3/d and 92,000 m3/d (543,100 bbl/d and 578,900 bbl/d) respectively, or 31% and 34% of domestic consumption in those periods.

A3 Natural Gas Supply and Demand Summary [a]

in millions of cubic metres per day

	1990	1991	Change %
Production			
Gross New Production	379	401	6
less:			
Injected, Shrinkage and Adjustments	75	79	5
Indigenous Supply	304	322	6
less:			
Producer Consumption	33	34	3
Marketable Production	**271**	**288**	**6**
Net Exports	**110**	**129**	**18**
Consumption			
Energy Use	139	142	2
Non-Energy Use	10	12	10
Converted to Electricity and Other [b]	45	40	- 11
Total Consumption	**194**	**194**	**—**
NEB Export Authorization	**162**	**162**	**—**

(a) Figures represent total industry activity and are derived from a number of sources:
Production — Statistics Canada (Catalogue 26-006)
Net Exports — EMR, Oil and Gas Branch
Consumption — Statistics Canada (Catalogue 45-004)

(b) Adjusted to represent total domestic consumption including producer consumption and stock variations.

A4 Canadian Natural Gas Prices

in dollars per gigajoule

	Field Gate Including Export Flow Back	Alberta Border	Toronto City Gate	Weighted Ontario Sales Realization	Ontario Market		
					Residential	Commercial	Industrial
1977	1.21	1.04	1.47	1.85	2.44	1.96	1.37
1978	1.44	1.28	1.77	2.14	2.74	2.22	1.90
1979	1.66	1.36	1.92	2.35	3.03	2.43	2.06
1980	2.30	1.61	2.23	2.69	3.43	2.73	2.36
1981	2.34	1.75	2.42	3.40 [a]	4.24	3.41	3.03
1982	2.53	2.01	2.80	4.16 [a]	4.93	4.12	3.70
1983	2.48	2.48	3.38	4.74 [a]	5.72	4.78	4.15
1984	2.61	2.78	3.71	4.77	5.79	4.86	4.16
1985	2.47	2.80	3.76	4.76	5.84	4.86	4.14
1986	2.32	2.80	3.78	4.73	5.79	4.81	4.04
1987				4.44	5.70	4.66	3.55
1988				4.38	5.87	4.55	3.50
1989				4.03	5.18	4.11	3.34
1990							
Jan				4.27	5.03	4.30	3.35
Feb				4.25	5.08	4.29	3.38
Mar				4.26	5.08	4.34	3.41
Apr				4.04	4.92	4.05	3.28
May				4.03	5.37	4.13	3.27
Jun				4.01	5.79	4.24	3.28
Jul				4.11	6.24	4.21	3.33
Aug				4.10	6.38	4.24	3.30
Sep				4.08	6.31	4.37	3.27
Oct				4.07	5.47	4.14	3.31
Nov				4.09	5.05	4.09	3.35
Dec				4.29	5.17	4.30	3.42
1991							
Jan				4.31	5.07	4.26	3.42
Feb				4.31	5.10	4.27	3.45
Mar				4.33	5.16	4.32	3.44
Apr				4.49	5.60	4.73	3.34
May				4.22	5.48	4.46	3.31
Jun				4.20	6.52	4.34	3.30
Jul				4.24	6.61	4.41	3.32
Aug				4.26	6.72	4.48	3.36
Sept				4.21	6.87	4.61	3.27
Oct				4.15	5.68	4.30	3.27
Nov				4.20	5.25	4.26	3.33
Dec				4.46	5.37	4.50	3.46

Source: Statistics Canada (Catalogue 55-002)

(a) The rising average sales realizations for the years 1981 to 1983 reflect the imposition of the Natural Gas and Gas Liquids Tax.

A5 Canadian Crude Oil Prices

	Conventional Crude Oil Wellhead Price [a]		Petroleum Compensation & Other Charges		Cost of Crude Oil Exclusive of Transportation [b]		Refiner Acquisition Cost at Montreal	
	$/bbl	$/m 3	$/bbl	$/m 3	$/bbl	$/m 3	$/bbl	$/m 3
1984								
Nov 10	29.75	187.22	7.69	48.39	37.44	235.61	39.44	248.21
1985								
Jun 01	36.40	229.06					38.30	241.02
1986								
Jan	32.79	206.34					34.96	218.93
Feb	22.20	139.70					24.18	152.16
Jul	14.60	91.88					16.58	104.34
Dec	19.23	121.01					21.30	134.04
1987								
Jan	22.74	143.10					24.87	156.51
Mar	20.36	128.13					22.48	141.47
Jul	25.17	158.39					27.32	171.92
Dec	20.95	131.84					23.14	145.62
1988								
Mar	17.67	111.20					19.81	124.66
Jun	18.43	115.98					20.55	129.32
Sep	15.94	100.31					18.05	113.71
Dec	16.04	100.94					18.15	114.22
1989								
Mar	19.84	124.83					21.99	138.34
Jun	21.53	135.47					23.68	149.00
Sep	20.57	129.45					22.77	143.29
Dec	21.62	136.06					23.81	149.84
1990								
Feb	24.16	152.04					26.37	165.59
Jun	16.96	106.73					19.35	121.77
Aug	28.26	177.84					30.64	192.82
Oct	38.71	243.60					41.11	258.71
1991								
Jan	25.17	158.39					27.60	173.69
Feb	20.08	126.36					22.51	141.66
Mar	19.38	121.96					21.81	137.25
Apr	20.33	127.94					22.76	143.23
May	20.72	130.39					23.14	145.62
Jun	19.68	123.85					22.10	139.08
Jul	21.41	134.73					22.83	149.96
Aug	21.48	135.17					23.90	150.40
Sept	21.61	135.99					24.03	151.22
Oct	22.80	143.48					25.22	158.70
Nov	22.14	139.33					24.57	154.61
Dec	18.99	119.50					21.42	134.80
1992								
Jan	18.71	117.74					21.24	133.66

Source: Energy, Mines and Resources Canada, Oil and Gas Branch

(a) Starting June 1, 1985, i.e. following deregulation, the wellhead price shown here is the Edmonton purchase price less estimated gathering costs of approximately $4.09/m3 (65¢/bbl).

(b) Gathering and transportation costs, and charges as applicable, make up the difference between the wellhead price and the refiner acquisition cost at Montréal. These costs amounted to $15.92/m3 ($2.53/bbl) on January 1, 1992.

A6 Average Crude Oil Refiner Acquisition Costs by Region[a]

in dollars per cubic metre

	British Columbia	Prairie Provinces	Ontario	Québec[b]	Atlantic[b]	Total Canada
1990						
Sep	188.38	223.35	186.29	208.97	231.49	207.11
Oct	231.43	240.01	234.57	256.62	269.04	244.29
Nov	239.10	219.93	243.74	264.18	270.51	243.59
Dec	216.36	179.73	223.05	227.74	227.61	213.93
1991						
Jan	189.07	162.64	187.99	218.21	215.22	189.79
Feb	162.54	128.92	159.84	176.20	170.21	156.76
Mar	144.34	122.20	142.98	154.51	151.51	142.85
Apr	134.60	133.25	134.97	142.93	139.66	136.60
May	137.90	135.09	133.45	139.63	139.63	136.07
Jun	136.34	126.42	136.38	132.02	132.02	132.40
Jul	138.78	133.66	137.43	134.68	134.68	135.54
Aug	142.97	132.40	142.44	139.32	139.32	138.66
Sep	115.61	133.87	143.01	145.18	145.18	141.85
Oct	146.50	142.82	146.28	151.93	151.93	147.49
Nov	151.54	137.94	148.51	158.84	158.84	150.22
Dec	140.11	118.04	140.95	146.26	146.26	136.98
1992						
Jan	125.33	114.75	129.40	136.76	136.76	128.15
Feb	124.67	118.84	127.96	139.07	139.07	128.93

Source: Energy, Mines and Resources Canada, Oil and Gas Branch.

(a) The variation in average refiner acquisition cost by region is due to quality differences and the lag time between the actual purchase and delivery dates. Assuming an estimated delivery time from Edmonton to Montréal of six weeks, receipts of any given month at Montréal reflect a mixture of crude purchases made during the two previous months.

(b) The exact average cost of crude oil imports is not available for Québec and the Atlantic region due to confidentiality considerations. Therefore, the average cost of imports for total eastern Canada has been used to determine the regional averages for Québec and Atlantic.

A7 Average Crude Oil Transportation Costs from Edmonton[a]

in dollars per cubic metre

	Vancouver	Regina	Sarnia	Toronto	Montréal
1990					
Sep	8.42	2.76	8.30	9.13	11.06
Oct	8.42	2.76	8.32	9.15	11.07
Nov	8.42	2.76	8.32	9.15	11.07
Dec	8.42	2.76	8.29	9.12	11.04
1991					
Jan	9.05	2.83	8.38	9.22	11.20
Feb	9.05	2.83	8.36	9.20	11.18
Mar	9.05	2.83	8.36	9.21	11.19
Apr	9.05	2.83	8.36	9.20	11.18
May	9.05	2.83	8.34	9.19	11.17
Jun	9.05	2.83	8.32	9.17	11.14
Jul	9.05	2.83	8.34	9.19	11.17
Aug	9.05	2.83	8.33	9.18	11.15
Sep	9.05	2.83	8.31	9.15	11.15
Oct	9.05	2.83	8.28	9.13	11.13
Nov	9.05	2.83	8.29	9.13	11.13
Dec	9.05	2.83	8.30	9.18	11.19
1992					
Jan	9.05	3.08	8.81	9.69	N/A
Feb	9.05	3.08	8.87	9.81	N/A
Mar	9.05	3.08	8.87	9.81	N/A

Source: Energy, Mines and Resources Canada, Oil and Gas Branch

(a) Includes pipeline tariffs and pipeline losses but excludes trucking charges.

A8 Canadian Acquisition Costs vs. Product Prices

in cents per litre

	Average Unit Revenue from Total Petroleum Product Sales [a]	Average Unit Refiner Acquisition Cost (lagged 60 days) [b]	Differential (To cover R&M Costs and Profits, and Retail Margin)
1985			
Dec	33.74	23.47	10.27
1986			
Dec	23.24	12.50	10.84
1987			
Dec	24.99	15.45	9.54
1988			
Dec	20.67	10.38	10.29
1989			
Dec	23.27	13.83	9.44
1990			
Jan	24.30	14.07	10.23
Feb	25.00	14.33	10.67
Mar	25.12	15.11	10.01
Apr	24.96	15.88	9.08
May	25.32	15.03	10.29
Jun	24.87	13.58	11.29
Jul	24.36	12.65	11.71
Aug	24.52	11.99	12.53
Sep	25.95	11.75	14.20
Oct	29.20	15.47	13.73
Nov	32.40	20.71	11.69
Dec	33.20	24.42	8.78
1991			
Jan	33.15	24.36	8.79
Feb	31.55	21.39	10.16
Mar	29.61	18.98	10.63
Apr	27.26	15.68	11.58
May	25.49	14.29	11.20
Jun	24.72	13.66	11.06
Jul	25.64	13.61	12.03
Aug	24.86	13.24	11.62
Sep	25.20	13.56	11.64
Oct	24.73	13.87	10.86
Nov	24.73	13.99	10.94
Dec	24.56	14.77	9.79
1992			
Jan	23.90	15.00	8.90
Feb	23.83	13.70	10.13
Mar	23.42	12.82	10.60

Sources:
(a) Statistics Canada, Prices Division.
(b) Energy, Mines and Resources Canada, Oil and Gas Branch.

A9 Average Net Prices for Selected Major Petroleum Products and Trade Classes by Region[a]

in cents per litre

	1990	1991	Change[b]
Regular Unleaded Gasoline - Branded Retail			
Atlantic	31.6	32.4	0.8
Québec	32.6	32.2	- 0.4
Ontario	29.0	27.4	- 1.6
Prairies	31.0	28.1	- 2.9
Pacific	33.5	30.1	- 3.4
Total Canada	30.8	29.3	- 1.5
Diesel Fuel - Commercial and Industrial			
Atlantic	24.2	24.9	0.7
Québec	22.9	23.5	0.6
Ontario	22.8	23.5	0.7
Prairies	22.6	23.3	0.7
Pacific	23.1	23.9	0.8
Total Canada	22.9	23.7	0.8
Light Fuel Oil - Branded Retail			
Atlantic	31.0	34.3	3.3
Québec	29.3	33.1	3.8
Ontario	32.5	34.5	2.0
Pacific	31.5	34.9	3.4
Total Canada	31.1	34.2	3.1
Heavy Fuel Oil # 6 - All trade classes			
Atlantic	12.6	10.9	- 1.7
Québec	12.0	10.6	- 1.4
Ontario	13.7	11.5	- 2.2
Pacific	11.9	N/A	—
Total Canada	13.6	12.6	- 1.0
Total Petroleum Products[c] - All trade classes			
Atlantic	24.9	25.7	0.8
Québec	24.3	25.1	0.8
Ontario	25.8	26.8	1.0
Prairies	27.5	27.5	—
Pacific	28.0	27.9	- 0.1
Total Canada	26.1	26.6	- 0.5

Source: Statistics Canada, Prices Division.

(a) Weighted average prices shown were derived from volumes and sales revenue data reported through a survey of major refiners for a wide range of finely specified products and trade classes. The prices are net of provincial road taxes, federal sales and excise taxes, goods and services taxes, and dealer margins.

(b) This represents the change in net prices compared to the prior period.

(c) This represents the summation of petroleum products from the sample selection reported to Statistics Canada in their survey.

A10 Petroleum Product Prices for Selected Major Products Sold to Private Brand Resellers

	1990		1991	
	Price ¢/litre	Market Share[a] %	Price ¢/litre	Market Share[a] %
Premium Unleaded Gasoline				
Québec	26.2	16.0	24.8	18.5
Ontario	26.2	14.1	26.0	15.9
Prairies	23.8	10.0	21.8	9.9
Regular Unleaded Gasoline				
Québec	23.0	17.1	21.9	20.5
Ontario	23.6	23.9	22.9	27.1
Prairies	23.0	11.3	20.9	15.6
Diesel Fuel				
Québec	21.0	15.8	21.1	18.0
Ontario	20.8	11.4	20.7	11.7
Light Fuel Oil				
Québec	20.2	27.2	21.9	28.1
Ontario	21.2	32.2	21.1	34.3
Pacific	23.7	15.5	24.9	15.6

Source: Statistics Canada, Prices Division
(a) Reflects an estimated market share of sales by reporting refiners, excluding product imports.

A11 Oil Products Sales Volumes: Refiners and Marketers

in millions of cubic metres

	Nationals			Regionals			Total		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Clean Products	46.2	47.1	2	22.4	8.0	69	68.5	71.3	4
Heavy and Specialty Products	11.9	8.4	– 29	6.7	5.6	– 17	18.6	14.0	– 25
Total Sales	**58.0**	**55.5**	**– 4**	**29.1**	**29.8**	**3**	**87.1**	**85.3**	**– 2**
less:									
Exports	3.3	4.1	24	4.6	6.0	30	7.9	10.1	27
Gross Sales in Canada	**54.7**	**51.4**	**– 6**	**24.4**	**23.8**	**– 2**	**79.2**	**75.2**	**– 5**
less:									
Sales to Other Refiners	—	—	—	0.1	—	– 100	0.1	—	– 100
Net Sales in Canada	**54.7**	**51.4**	**– 6**	**24.4**	**23.8**	**– 2**	**79.1**	**75.2**	**– 5**

A12 Net Income by Sector and Segment

in millions of dollars

	1990	1991	Change	Change %
Canadian-Controlled Companies				
Upstream	801	- 580	- 1381	—
Downstream	279	- 471	- 751	—
Other Canadian Operations	- 77	- 48	28	—
Foreign Activities	41	- 87	- 128	—
Total Canadian-Controlled	**1045**	**- 1186**	**- 2232**	**—**
Foreign-Controlled Companies				
Upstream	910	- 663	- 1572	—
Downstream	224	- 129	- 353	—
Other Canadian Operations	- 41	- 413	- 372	—
Foreign Activities	114	25	- 89	- 78
Total Foreign-Controlled	**1207**	**- 1179**	**- 2386**	**—**
Total Industry				
Upstream	1711	- 1243	- 2954	—
Downstream	503	- 600	- 1103	—
Other Canadian Operations	- 118	- 461	- 343	—
Foreign Activities	156	- 62	- 217	—
Grand Total	**2252**	**- 2366**	**- 4618**	**—**

A13 Rates of Return: Canadian Petroleum Industry

in percent

	1986	1987	1988	1989	1990	1991	Five-Year Average[a] ending in 1990	Five-Year Average[a] ending in 1991
Return on Average Capital Employed								
Upstream								
Canadian-Controlled Companies	- 4.4	4.9	4.3	2.8	5.1	- 0.3	2.3	3.4
Foreign-Controlled Companies	3.8	8.8	3.0	3.2	4.2	- 0.9	4.3	3.3
Total Industry	- 1.0	6.5	3.6	3.1	4.6	- 0.6	3.3	3.3
Downstream [b]								
Canadian-Controlled Companies	6.0	3.9	6.7	4.5	5.0	- 7.1	5.2	2.5
Foreign-Controlled Companies	8.2	8.2	9.3	6.6	2.1	—	6.6	4.9
Total Industry*	7.2	6.4	8.2	5.8	3.2	- 2.8	6.0	3.9
Total Operations [c]								
Canadian-Controlled Companies	- 4.6	4.8	4.6	3.6	5.3	- 0.9	2.4	3.5
Foreign-Controlled Companies	4.4	8.3	5.0	4.2	4.5	- 0.8	5.2	4.0
Total Industry	- 0.9	6.3	4.8	3.9	4.8	- 0.8	3.8	3.8
*Memo:								
National Refiners/Marketers	7.0	5.9	6.7	5.4	0.6	- 5.5	4.9	2.4
Regional Refiners/Marketers	7.8	7.7	12.0	6.5	8.5	2.5	8.4	7.2
Return on Average Equity								
Total Operations [c]								
Canadian-Controlled Companies	- 19.9	5.2	4.9	2.5	5.4	- 6.1	- 0.4	2.3
Foreign-Controlled Companies	5.9	12.4	6.0	4.0	5.7	- 6.0	6.7	4.3
Total Industry	- 7.6	8.8	5.5	3.3	5.6	- 6.0	3.2	3.3

(a) Weighted average calculation of the five-year rates.
(b) Downstream here represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.
(c) Upstream, downstream (includes petrochemicals and other downstream activities), 'Other Canadian' and foreign operations.

A14 Rates of Return: Non-Financial Industries Excluding Petroleum

in percent

	1986	1987	1988	1989	1990	1991	Five-Year Average ending in 1990	Five-Year Average ending in 1991
Return on Shareholders' Equity [a]								
Non-Financial Industries Excluding Petroleum	11.2	12.8	14.5	11.4	5.1	0.7	11.0	8.9
Petroleum Industry [b]	–12.5	6.8	7.3	4.6	5.5	–2.4	2.3	4.3
Return on Capital Employed [c]								
Non-Financial Industries Excluding Petroleum	9.1	9.8	10.4	9.0	5.8	2.5	8.8	7.5
Petroleum Industry [b]	–0.8	5.5	6.1	4.7	4.9	1.9	4.1	4.6

Source: Statistics Canada 61-008, Quarterly Financial Statistics for Enterprises.

(a) Return on equity is defined as net profit after tax and extraordinary items, divided by average book equity. It measures the rate of return on shareholders' investment (paid-in capital and retained earnings). This measure is often used to compare the performance of companies that may vary by type and by size.

(b) Also includes, wholesaling and retailing activity, contract drilling, petroleum pipelines and other services incidental to petroleum and natural gas products.

(c) Capital employed is defined as total assets less current liabilities. The net income figures used to compute the rates of return on capital employed have been adjusted by adding back the after-tax interest expenses.

A15 Reinvestment Rates

in percent

	Total [a]		Upstream [b]		Upstream [c] plus Downstream	
	1990	1991	1990	1991	1990	1991
Integrateds and Refiners	**82**	**123**	**55**	**104**	**65**	**113**
Oil and Gas Producers						
Senior Producers	86	123	81	113	81	118
Junior Producers	113	138	118	141	118	140
Total Oil & Gas Producers	94	127	91	120	91	124
Total Industry	**90**	**126**	**80**	**116**	**80**	**120**
Canadian-Controlled	101	135	97	127	93	130
Foreign-Controlled	81	118	67	107	70	112

(a) Total capital expenditures (net of incentives, grants and other receipts) as a percentage of total internal cash flow. The calculations do not reflect changes in inventories. Had changes in the cost of inventories been included, the reinvestment rate would have been 143% in 1991 vs. 79% in 1990.

(b) Upstream capital expenditures (net of incentives, grants and other receipts) in Canada as a percentage of upstream cash flow.

(c) Net upstream plus downstream (petroleum-related) capital expenditures in Canada as a percentage of internal cash flow generated by petroleum-related activities.

A16 Gross Exploration Expenditures in Canada by Area

in millions of dollars

	1990	1991	Change %
Provincial Lands			
British Columbia	476	458	– 4
Alberta	1880	1598	– 15
Saskatchewan	133	88	– 34
Other Provinces	15	22	46
Total Provincial Lands	**2504**	**2167**	**– 13**
Canada Lands			
Beaufort Sea	57	37	– 35
Labrador East	76	78	3
Other Canada Lands	70	58	– 17
Total Canada Lands	**203**	**173**	**– 15**
Total Canada	**2707**	**2340**	**– 14**

A17 Well Completions and Metres Drilled in Canada

	Exploratory			Development		
	1990	1991	Change %	1990	1991	Change %
Well Completions (in number of wells)						
British Columbia	135	122	– 10	144	109	– 24
Alberta	2166	1804	– 17	1876	2030	8
Saskatchewan	394	288	– 27	964	810	– 16
Other Provinces	61	34	– 44	123	90	– 27
Northern Canada [a]	16	12	– 25	—	2	—
Offshore [b]	1	5	—	—	3	—
Total	**2773**	**2265**	**– 18**	**3107**	**3044**	**– 2**
Metres Drilled (in thousands)						
British Columbia	242	223	– 8	216	179	– 17
Alberta	2968	2425	– 18	2132	2323	9
Saskatchewan	398	286	– 28	834	787	– 6
Other Provinces	44	36	– 18	89	66	– 12
Northern Canada [a]	23	12	– 48	—	8	—
Offshore [b]	3	11	267	—	8	—
Total	**3678**	**2993**	**– 19**	**3271**	**3371**	**3**

Source: Oilweek, February 17, 1992.

(a) All areas in Canada north of 60°, including Hudson Bay.

(b) East coast and West coast offshore areas.

A18 Comparison of Interest Charges with Income before Interest and Taxes: 1991[a]

in millions of dollars

	(1) Income Before Interest and Taxes	(2) Interest Charges Incurred	(3) Interest Coverage Ratio (times)
Integrateds and Refiners	**– 202**	**991**	**– 0.2**
Oil and Gas Producers			
Senior Producers	852	899	0.9
Junior Producers	– 940	387	– 2.4
Total Oil and Gas Producers	– 88	1285	– 0.1
Total Industry[b]	– 290	2276	– 0.1
Canadian-Controlled	– 306	1077	– 0.3
Foreign-Controlled	16	1199	—

(a) The figures in column 1 represent the total of income from total operations before taxes and expensed interest. Column 2 shows total interest charges incurred (both expensed and capitalized). Column 3 is the ratio of column 1 to column 2.
(b) In addition to the $2.1 billion of interest charges expensed in 1991, $131 million was capitalized (mostly by foreign-controlled companies).

A19 Dividend Payments

	1990	1991	1990	1991
	$ million		% of net income[a]	
Integrateds and Refiners	**703**	**664**	**58**	**– 72**
Oil and Gas Producers				
Senior Producers	853	568	110	– 183
Junior Producers	116	122	44	– 11
Total Oil and Gas Producers	969	690	93	– 48
Total Industry	**1671**	**1354**	**74**	**– 57**
Canadian-Controlled	645	513	62	– 43
Foreign-Controlled	1026	842	85	– 71

(a) Percentages are derived by dividing dividend payments for each company group by their net income on total operations (Appendices B1 to B7 and B10).

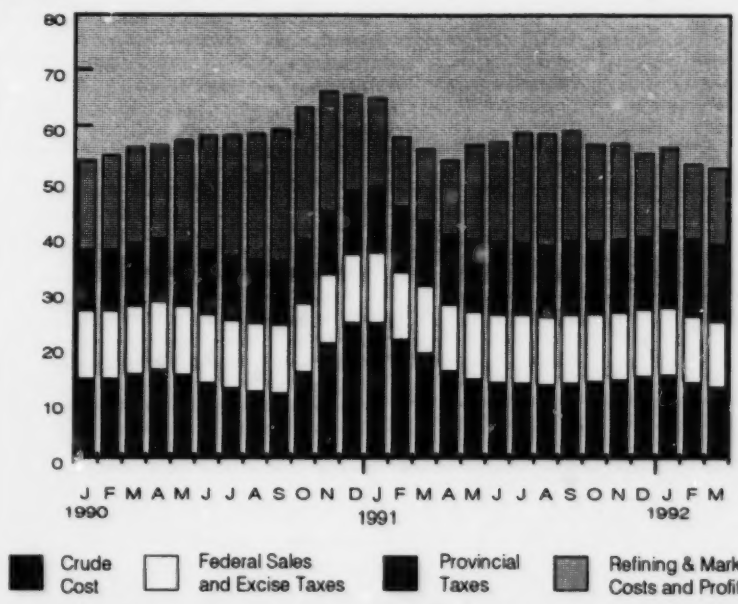
A20 Income and Expense Statement

in percent of revenues

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Upstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Royalties and Other Payments	26	26	24	23	19	17	16	16	16	15
PGRT and Other Taxes	9	8	8	7	3	—	—	—	—	—
Interest Expenses	7	6	6	6	10	9	9	7	6	6
Operating Costs and Other Cash Items	19	18	18	20	32	29	38	37	34	40
Current Income Taxes	8	11	11	11	5	6	—	2	5	4
Cash Flow	26	31	32	34	32	38	37	37	39	34
Depreciation, Depletion and Amortization	8	12	10	11	25	20	24	24	22	38
Other Non-cash Charges	5	4	4	4	7	5	9	7	6	5
Deferred Income Taxes	5	5	6	6	—	2	1	3	3	– 2
Extraordinary Gains	—	—	—	– 1	– 12	—	1	—	—	—
Net Income	9	11	11	12	– 11	11	5	4	8	– 7
Downstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Sales, Excise and Other Taxes	6	6	6	7	11	15	16	17	16	11
Cost of Goods Sold	80	83	80	79	68	64	58	59	61	67
Interest Expenses	1	1	1	1	—	—	—	1	1	1
Operating Costs and Other Cash Items	10	10	9	10	13	13	14	15	16	17
Current Income Taxes	– 1	– 1	—	—	2	2	3	2	2	—
Cash Flow	4	3	3	3	6	6	9	7	4	3
Depreciation, Depletion and Amortization	2	2	2	3	2	3	3	3	3	6
Other Non-cash Charges	—	—	—	—	—	—	—	—	—	—
Deferred Income Taxes	1	1	—	—	—	—	1	—	—	– 1
Extraordinary Gains	—	—	—	—	– 1	—	—	—	—	– 2
Net Income	1	—	1	1	3	3	5	3	2	3

A21 Average Retail Price of Motor Gasoline in Canada

in cents per litre



Source: Energy Mines and Resources Canada, Oil and Gas Branch.

(a) Refining and Marketing (R&M) costs and profits is the residual revenue available to recover the refining, marketing, transportation and distribution costs and to provide a return on investment and a dealer margin.

A22 Canadian Ownership and Control by Company Group and Category

in percent

	Ownership		Control	
	1990	1991	1990	1991
Petroleum-Related Revenues (a)				
Integrateds and Refiners	44.6	43.8	32.6	32.0
Oil and Gas Producers	48.6	50.2	53.2	53.8
Total Industry	**45.7**	**45.5**	**38.1**	**38.0**
Upstream Revenues				
Integrateds and Refiners	39.0	37.6	20.5	21.5
Oil and Gas Producers	46.4	48.5	51.0	52.0
Total Industry	**44.0**	**45.2**	**40.9**	**42.8**
Other Measurement Bases				
Revenues				
Natural Gas	44.0	44.6	42.5	42.9
Crude Oil	43.5	42.9	39.1	41.5
Downstream	46.7	45.8	36.4	35.1
Exploration Expenditures	**52.1**	**51.9**	**53.3**	**53.1**
Total Assets in Canada	**49.2**	**49.4**	**44.5**	**45.7**

(a) Many petroleum companies have operations in non-petroleum related fields which are not included here. Upstream plus downstream revenues have been taken as a substitute for a more specifically defined figure reflecting every aspect of the Canadian petroleum industry.

A23 'In-house' R&D Expenditures

in millions of dollars

	1990			1991		
	Corporate Funds[a]	Government Funds	Total	Corporate Funds[a]	Government Funds	Total
Upstream						
Conventional Exploration and Production	37.7	0.1	37.8	36.3	0.3	36.6
Enhanced Recovery	10.4	0.1	10.5	5.4	0.2	5.6
Bitumen						
Surface Mining	24.8	4.4	29.2	24.9	0.2	25.1
In-Situ	32.8	2.7	35.5	36.7	2.4	39.0
Total Bitumen	57.6	7.1	64.7	61.5	2.6	64.1
Total Upstream	105.7	7.3	113.0	103.2	3.0	106.3
Refining	62.2	0.1	62.3	55.6	—	55.6
Other						
Other Energy	6.8	0.3	7.2	9.3	0.2	9.5
Non Energy	2.8	0.6	3.4	3.9	0.7	4.6
Total Other	9.7	0.9	10.6	13.2	0.9	14.1
Total Expenditures	**177.6**	**8.3**	**185.8**	**172.0**	**4.0**	**175.9**

(a) Corporate funds are composed of internal funds, funds from subsidiaries and affiliates, and funds from others for contract work performed by the reporting energy enterprise.

B

Complete Survey Results

B1

Income and Expense Statement – All Operations
Total Industry
in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	20908	18067	- 13.6	32869	28954	- 11.9	2354	2109	- 10.4	2003	2133	6.5	58134	51263	- 11.8
Royalties and Other Payments	3260	2682	- 17.7	—	—	—	—	—	—	—	—	—	3260	2682	- 17.7
Sales, Excise and Other Taxes	—	—	—	5123	3225	- 37.0	13	1	- 93.3	154	111	- 27.8	5290	3338	- 36.9
Total Revenues after Royalties and Taxes	17648	15385	- 12.8	27745	25729	- 7.3	2341	2108	- 10.0	1849	2022	9.3	49584	45244	- 8.8
Cost of Goods Sold	—	—	—	20167	19601	- 3.3	1283	1168	- 9.0	692	877	26.7	22142	21646	- 2.7
Interest Expenses	1273	1152	- 9.6	323	309	- 4.4	860	661	- 23.1	28	23	- 15.9	2484	2145	- 13.6
Operating Costs	6893	7137	3.5	5198	4902	- 5.7	811	621	- 23.4	392	544	38.7	13294	13205	- 0.7
R&D Costs (Excluding Oil Sands)	64	65	1.5	99	116	17.0	1	—	- 98.0	8	9	13.9	172	190	10.7
Other Expenses	122	80	- 34.7	- 3	3	—	46	43	- 6.7	8	6	- 26.4	174	132	- 23.8
Oil Sands R&D Expensed	47	65	39.8	—	—	—	—	—	—	—	—	40.8	47	66	39.8
E&D Expensed	1167	873	- 25.2	—	—	—	32	9	- 72.2	107	127	19.0	1306	1009	- 22.8
Depreciation	1207	1352	12.0	911	913	0.3	206	155	- 24.7	67	76	12.1	2391	2496	4.4
Depletion	2818	2844	0.9	—	—	—	17	14	- 20.4	268	249	- 7.2	3103	3107	0.1
Write-Offs & Amortization	654	2724	316.7	71	700	—	- 237	215	—	2	145	—	489	3784	—
Non-Cash Charges and E&D	5893	7858	33.4	981	1613	64.4	18	393	—	444	596	34.3	7336	10460	42.6
Income before Taxes	3403	- 906	—	979	- 716	—	- 679	- 778	—	278	- 34	—	3982	- 2435	—
Federal Income Tax[a]	912	582	- 36.2	465	36	- 92.3	- 176	- 192	—	93	30	- 67.2	1294	456	- 64.8
Provincial Income Taxes	218	128	- 41.2	177	1	- 99.6	- 111	- 132	--	2	5	107.9	286	2	- 99.3
Current Income Taxes	1130	710	- 37.2	641	37	- 94.3	- 286	- 324	—	95	35	- 63.2	1580	458	- 71.0
Income after Current Income Taxes	2273	- 1616	—	338	- 753	—	- 391	- 455	—	182	- 69	—	2402	- 2893	—
Deferred Income Taxes	528	- 329	—	- 164	- 228	—	- 277	6	—	39	- 7	—	126	- 559	—
Net Income after Taxes	1745	- 1287	—	502	- 524	—	- 115	- 460	—	144	- 62	—	2276	- 2334	—
Extraordinary Items	- 34	45	—	2	- 76	—	- 3	—	—	12	—	- 100.0	- 24	- 32	—
Net Income after Extraordinary Items	1711	- 1243	—	503	- 600	—	- 117	- 461	—	155	- 62	—	2252	- 2366	—
Internal Cash Flow	8166	6242	- 23.6	1319	860	- 34.8	- 373	- 62	—	627	527	- 15.8	9738	7567	- 22.3

(a) Federal Income Tax includes Large Corporations Tax

B2

Income and Expense Statement – All Operations

Integrateds and Refiners

in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	6802	5454	- 19.8	32315	28473	- 11.9	1366	1225	- 10.3	385	333	- 13.3	40867	35485	- 13.2
Royalties and Other Payments	945	731	- 22.7	—	—	—	—	—	—	—	—	—	945	731	- 22.7
Sales, Excise and Other Taxes	—	—	—	5123	3225	- 37.0	13	1	- 93.1	1	1	0.2	5137	3227	- 37.2
Total Revenues after Royalties and Taxes	5857	4723	- 19.3	27192	25247	- 7.2	1353	1224	- 9.5	384	333	- 13.3	34785	31527	- 9.4
Cost of Goods Sold	—	—	—	19907	19270	- 3.2	1097	961	- 12.4	324	269	- 16.9	21328	20501	- 3.9
Interest Expenses	41	23	- 42.5	311	294	- 5.5	742	561	- 24.3	20	14	- 32.0	1113	893	- 19.8
Operating Costs	2524	2465	- 2.3	4987	4733	- 5.1	254	127	- 50.1	33	35	7.0	7798	7360	- 5.6
R&D Costs (Excluding Oil Sands)	57	44	- 22.0	99	116	17.0	—	—	- 100.0	—	—	—	156	160	2.6
Other Expenses	8	12	54.7	- 3	3	—	46	29	- 36.1	—	—	—	51	44	- 12.5
Oil Sands R&D Expensed	28	34	21.9	—	—	—	—	—	—	—	—	—	28	34	21.9
E&D Expensed	359	266	- 26.0	—	—	—	5	2	- 61.0	39	41	6.4	402	309	- 23.1
Depreciation	406	506	24.6	864	880	1.9	88	75	- 14.5	3	3	- 9.5	1361	1464	7.6
Depletion	577	554	- 4.0	—	—	—	1	1	22.8	16	19	14.7	594	574	- 3.4
Write-Offs & Amortization	136	433	219.1	72	705	—	- 193	111	—	- 11	34	—	4	1284	—
Non-Cash Charges and E&D	1505	1792	19.1	936	1585	69.4	- 100	189	—	46	97	110.2	2388	3664	53.4
Income before Taxes	1722	387	- 77.5	954	- 754	—	- 686	- 644	—	- 40	- 83	—	1950	- 1096	—
Federal Income Tax[a]	454	301	- 33.6	456	41	- 91.0	- 175	- 203	—	11	3	- 74.1	746	142	- 80.9
Provincial Income Taxes	197	137	- 30.4	172	- 1	—	- 107	- 132	—	4	2	- 62.5	267	6	- 97.9
Current Income Taxes	651	439	- 32.6	628	40	- 93.7	- 282	- 335	—	15	4	- 70.9	1013	148	- 85.4
Income after Current Income Taxes	1071	- 52	—	326	- 794	—	- 404	- 309	—	- 55	- 88	—	938	- 1242	—
Deferred Income Taxes	116	- 157	—	- 157	- 237	—	- 232	13	—	- 6	- 14	—	- 279	- 396	—
Net Income after Taxes	955	105	- 89.0	483	- 557	—	- 173	- 322	—	- 49	- 74	—	1217	- 848	—
Extraordinary Items	—	—	—	2	- 76	—	- 3	—	—	—	—	—	- 1	- 76	—
Net Income after Extraordinary Items	955	105	- 89.0	485	- 633	—	- 175	- 322	—	- 49	- 74	—	1215	- 924	—
Internal Cash Flow	2577	1740	- 32.5	1262	791	- 37.3	- 504	- 119	—	- 9	9	—	3326	2422	- 27.2

(a) Federal Income Tax includes Large Corporations Tax.

B3

Income and Expense Statement – All Operations

Junior Oil and Gas Producers

in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	3673	3398	-7.5	34	23	-31.8	243	304	25.2	574	429	-25.2	4524	4155	-8.2
Royalties and Other Payments	617	575	-7.0	—	—	—	—	—	—	—	—	—	617	575	-7.0
Sales, Excise and Other Taxes	—	—	—	—	—	—	—	—	-100.0	55	39	-29.8	55	39	-30.3
Total Revenues after Royalties and Taxes	3055	2824	-7.6	34	23	-31.8	242	304	25.4	519	390	-24.8	3851	3542	-8.0
Cost of Goods Sold	—	—	—	—	—	—	5	7	20.6	—	—	—	5	7	20.6
Interest Expenses	392	354	-9.8	—	—	—	18	20	8.1	4	4	-15.6	415	377	-9.0
Operating Costs	1109	1254	13.1	33	11	-66.1	168	200	19.3	164	146	-10.8	1473	1611	9.3
R&D Costs (Excluding Oil Sands)	1	1	-17.9	—	—	—	—	—	-21.4	—	—	—	1	1	-17.9
Other Expenses	84	62	-26.2	—	—	—	10	15	47.9	6	2	-61.9	101	80	-20.7
Oil Sands R&D Expensed	1	2	39.6	—	—	—	—	—	—	—	—	—	1	2	39.6
E&D Expensed	152	139	-9.1	—	—	—	—	—	—	—	2	377.6	153	140	-8.2
Depreciation	191	200	5.0	6	3	-51.8	15	19	26.4	17	14	-18.0	228	236	3.3
Depletion	892	873	-2.1	—	—	—	—	8	—	119	103	-13.4	1011	983	-2.7
Write-Offs & Amortization	78	1373	—	—	-1	—	3	32	—	21	18	-12.7	102	1423	—
Non-Cash Charges and E&D	1313	2586	96.9	6	2	-69.9	18	59	231.3	157	137	-12.9	1494	2784	86.3
Income before Taxes	156	-1432	—	-4	10	—	23	4	-83.1	187	101	-46.0	361	-1317	—
Federal Income Tax[a]	62	67	8.8	—	—	—	17	8	-56.6	37	-9	—	116	66	-43.3
Provincial Income Taxes	-84	-79	—	—	—	—	—	1	50.9	—	—	-100.0	-84	-79	—
Current Income Taxes	-23	-12	—	—	—	—	18	8	-53.6	37	-9	—	32	-13	—
Income after Current Income Taxes	178	-1420	—	-4	10	—	5	-4	—	150	110	-26.7	329	-1304	—
Deferred Income Taxes	59	-158	—	—	—	—	-4	-3	—	19	32	67.5	74	-129	—
Net Income after Taxes	120	-1262	—	-4	10	—	9	-2	—	131	79	-40.2	256	-1175	—
Extraordinary Items	5	45	—	—	—	—	—	—	—	—	—	—	5	44	—
Net Income after Extraordinary Items	124	-1217	—	-4	10	—	9	-2	—	131	79	-40.2	261	-1131	—
Internal Cash Flow	1492	1166	-21.8	2	12	—	23	54	135.9	308	247	-19.6	1824	1479	-18.9

(a) Federal Income Tax includes Large Corporations Tax.

B4

Income and Expense Statement – All Operations

Senior Oil and Gas Producers

in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	10434	9215	- 11.7	519	458	- 11.8	746	580	- 22.2	1045	1371	31.2	12743	11623	- 8.8
Royalties and Other Payments	1698	1377	- 18.9	—	—	—	—	—	—	—	—	—	1698	1377	- 18.9
Sales, Excise and Other Taxes	—	—	—	—	—	—	—	—	—	98	72	- 26.6	98	72	- 26.6
Total Revenues after Royalties and Taxes	8736	7838	- 10.3	519	458	- 11.8	746	580	- 22.2	947	1299	37.2	10948	10175	- 7.1
Cost of Goods Sold	—	—	—	260	231	- 11.2	180	200	10.9	368	608	65.2	808	1039	28.5
Interest Expenses	840	774	- 7.9	12	15	21.1	100	80	- 19.7	3	6	87.0	956	875	- 8.4
Operating Costs	3260	3419	4.9	178	158	- 11.3	389	294	- 24.4	195	362	85.7	4023	4234	5.2
R&D Costs (Excluding Oil Sands)	6	20	209.7	—	—	—	—	—	- 100.0	8	9	13.9	15	29	99.7
Other Expenses	30	6	- 81.4	—	—	—	- 9	- 1	—	2	3	106.4	22	8	- 63.4
Oil Sands R&D Expensed	17	29	68.8	—	—	—	—	—	—	—	—	40.8	18	30	68.6
E&D Expensed	656	468	- 28.6	—	—	—	28	7	- 74.1	68	84	22.9	752	560	- 25.6
Depreciation	611	646	5.8	41	30	- 26.4	103	61	- 41.0	47	59	24.2	802	796	- 0.8
Depletion	1349	1418	5.1	—	—	—	16	5	- 69.2	133	127	- 4.4	1499	1550	3.4
Write-Offs & Amortization	441	918	108.4	- 2	- 4	—	- 47	72	—	- 8	92	—	384	1077	180.8
Non-Cash Charges and E&D	3074	3480	13.2	39	26	- 33.6	100	144	44.4	241	362	50.5	3454	4013	16.2
Income before Taxes	1525	139	- 90.9	29	28	- 4.6	- 15	- 139	—	130	- 52	—	1670	- 23	—
Federal Income Tax[a]	396	213	- 46.2	9	- 5	—	- 18	4	—	45	37	- 19.0	433	248	- 42.6
Provincial Income Taxes	105	70	- 33.1	4	2	- 46.7	- 4	- 1	—	- 2	3	—	103	75	- 26.9
Current Income Taxes	502	284	- 43.5	13	- 3	—	- 22	3	—	43	40	- 7.4	535	323	- 39.6
Income after Current Income Taxes	1023	- 144	—	16	31	92.2	7	- 142	—	88	- 91	—	1134	- 346	—
Deferred Income Taxes	353	- 14	—	- 7	8	—	- 41	- 5	—	26	- 24	—	331	- 35	—
Net Income after Taxes	670	- 130	—	23	22	- 1.2	49	- 137	—	62	- 67	—	803	- 311	—
Extraordinary Items	- 39	—	—	—	—	—	—	—	—	12	—	- 100.0	- 27	—	—
Net Income after Extraordinary Items	631	- 130	—	23	22	- 1.2	49	- 137	—	73	- 67	—	776	- 311	—
Internal Cash Flow	4097	3335	- 18.6	55	57	2.8	108	3	- 97.3	328	271	- 17.5	4589	3666	- 20.1

(a) Federal Income Tax includes Large Corporations Tax.

B5

Income and Expense Statement – All Operations

Total Oil and Gas Producers

in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	14107	12613	- 10.6	554	481	- 13.0	989	884	- 10.6	1618	1800	11.2	17267	15778	- 8.6
Royalties and Other Payments	2315	1952	- 15.7	—	—	—	—	—	—	—	—	—	2315	1952	- 15.7
Sales, Excise and Other Taxes	—	—	—	—	—	—	—	—	- 100.0	153	110	- 27.8	153	110	- 28.0
Total Revenues after Royalties and Taxes	11791	10662	- 9.6	554	481	- 13.0	988	884	- 10.5	1466	1689	15.2	14799	13716	- 7.3
Cost of Goods Sold	—	—	—	260	231	- 11.2	186	207	11.2	368	608	65.2	814	1045	28.5
Interest Expenses	1233	1128	- 8.5	12	15	22.4	118	100	- 15.5	7	10	27.4	1371	1252	- 8.6
Operating Costs	4369	4673	6.9	211	169	- 19.9	557	494	- 11.2	359	509	41.6	5497	5845	6.3
R&D Costs (Excluding Oil Sands)	7	21	187.3	—	—	—	—	—	- 94.3	8	9	13.9	15	30	94.1
Other Expenses	114	68	- 40.7	—	—	—	1	14	—	8	6	- 26.4	123	88	- 28.5
Oil Sands R&D Expensed	19	31	67.1	—	—	—	—	—	—	—	—	40.8	19	31	66.9
E&D Expensed	808	607	- 24.9	—	—	—	28	7	- 74.1	69	86	24.8	905	700	- 22.6
Depreciation	801	846	5.6	47	33	- 29.4	118	80	- 32.3	64	73	13.2	1031	1032	0.1
Depletion	2241	2290	2.2	—	—	—	16	13	- 22.6	252	230	- 8.6	2509	2533	0.9
Write-Offs & Amortization	518	2291	342.2	- 2	- 5	—	- 44	104	—	13	110	—	485	2500	—
Non-Cash Charges and E&D	4387	6066	38.3	45	28	- 38.3	118	203	72.5	398	499	25.5	4948	6796	37.3
Income before Taxes	1681	- 1293	—	25	38	54.1	8	- 135	—	318	49	- 84.4	2031	- 1340	—
Federal Income Tax [a]	458	280	- 38.8	9	- 5	—	- 1	11	—	82	28	- 66.3	548	314	- 42.8
Provincial Income Taxes	21	- 9	—	4	2	- 46.7	- 4	—	—	- 2	3	—	19	- 4	—
Current Income Taxes	479	271	- 43.4	13	- 3	—	- 5	11	—	80	31	- 61.7	567	310	- 45.3
Income after Current Income Taxes	1202	- 1564	—	12	41	254.1	13	- 146	—	238	19	- 92.1	1464	- 1650	—
Deferred Income Taxes	412	- 172	—	- 7	8	—	- 45	- 8	—	45	7	- 84.0	405	- 164	—
Net Income after Taxes	790	- 1392	—	18	33	78.8	58	- 138	—	193	12	- 94.0	1059	- 1486	—
Extraordinary Items	- 34	45	—	—	—	—	—	—	—	12	—	- 100.0	- 22	44	—
Net Income after Extraordinary Items	756	- 1347	—	18	33	78.8	58	- 139	—	205	12	- 94.3	1037	- 1442	—
Internal Cash Flow	5589	4501	- 19.5	57	69	21.1	131	57	- 56.1	636	518	- 18.5	6412	5146	- 19.8

(a) Federal Income Tax includes Large Corporations Tax.

B6

Income and Expense Statement – All Operations

Canadian-Controlled Companies

in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	8583	7739	-9.8	11586	10149	-12.4	1618	1686	4.2	729	784	7.6	22516	20359	-9.6
Royalties and Other Payments	1255	1087	-13.4	—	—	—	—	—	—	—	—	—	1255	1087	-13.4
Sales, Excise and Other Taxes	—	—	—	1712	1103	-35.6	13	—	-100.0	72	49	-32.5	1797	1151	-35.9
Total Revenues after Royalties and Taxes	7327	6653	-9.2	9875	9046	-8.4	1605	1686	5.1	657	736	11.9	19464	18121	-6.9
Cost of Goods Sold	—	—	—	7387	7132	-3.4	1028	968	-5.8	142	160	13.1	8556	8260	-3.5
Interest Expenses	703	655	-6.8	148	128	-12.9	351	267	-23.8	4	7	74.6	1205	1058	-12.2
Operating Costs	2850	3057	7.2	1493	1468	-1.7	381	464	21.6	164	271	64.9	4889	5259	7.6
R&D Costs (Excluding Oil Sands)	—	—	—	11	12	6.5	—	—	—	—	—	—	11	12	6.5
Other Expenses	64	39	-39.6	4	6	35.1	12	45	291.6	9	9	-10.2	89	98	10.0
Oil Sands R&D Expensed	2	2	6.6	—	—	—	—	—	—	—	—	—	2	2	6.6
E&D Expensed	262	164	-37.4	—	—	—	11	7	-33.3	88	79	-10.3	360	250	-30.7
Depreciation	507	567	11.9	403	389	-3.6	67	67	1.1	59	64	8.7	1035	1086	5.0
Depletion	1519	1526	0.4	—	—	—	6	13	122.8	113	111	-2.0	1639	1650	0.7
Write-Offs & Amortization	92	1099	—	-6	644	—	-23	-34	—	-5	101	—	59	1809	—
Non-Cash Charges and E&D	2382	3358	41.0	397	1032	159.8	60	53	-11.7	255	354	38.8	3095	4797	55.0
Income before Taxes	1328	-455	—	434	-733	—	-226	-111	—	83	-65	—	1619	-1364	—
Federal Income Tax [a]	247	175	-28.9	147	19	-86.9	-54	-26	—	45	3	-93.1	384	172	-55.2
Provincial Income Taxes	-37	-28	—	42	-17	—	-36	-19	—	2	—	—	-30	-64	—
Current Income Taxes	209	147	-29.5	188	2	-98.9	-91	-45	—	47	3	-93.5	354	108	-69.6
Income after Current Income Taxes	1119	-603	—	246	-735	—	-136	-66	—	35	-68	—	1265	-1471	—
Deferred Income Taxes	322	-25	—	-33	-279	—	-62	-18	—	-6	19	—	221	-303	—
Net Income after Taxes	797	-578	—	279	-455	—	-74	-48	—	41	-87	—	1044	-1168	—
Extraordinary Items	5	-2	—	—	-16	—	-3	—	—	—	—	—	2	-18	—
Net Income after Extraordinary Items	801	-580	—	279	-471	—	-77	-48	—	41	-87	—	1045	-1186	—
Internal Cash Flow	3501	2755	-21.3	643	298	-53.8	-76	-13	—	291	286	-1.5	4360	3326	-23.7

(a) Federal Income Tax includes Large Corporations Tax.

B7

Income and Expense Statement – All Operations

Foreign-Controlled Companies

in millions of dollars

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	12326	10328	- 16.2	21282	18805	- 11.6	736	423	- 42.6	1274	1349	5.9	35618	30904	- 13.2
Royalties and Other Payments	2005	1596	- 20.4	—	—	—	—	—	—	—	—	—	2005	1596	- 20.4
Sales, Excise and Other Taxes	—	—	—	3412	2123	- 37.8	1	1	52.0	82	63	- 23.3	3494	2186	- 37.4
Total Revenues after Royalties and Taxes	10321	8732	- 15.4	17871	16683	- 6.6	736	422	- 42.7	1192	1286	7.9	30119	27123	- 9.9
Cost of Goods Sold	—	—	—	12781	12369	- 3.2	255	200	- 21.6	550	717	30.3	13586	13286	- 2.2
Interest Expenses	571	496	- 13.0	176	180	2.7	509	394	- 22.6	24	17	- 30.7	1279	1087	- 15.0
Operating Costs	4043	4081	0.9	3705	3434	- 7.3	429	157	- 63.3	228	273	19.9	8405	7945	- 5.5
R&D Costs (Excluding Oil Sands)	64	65	1.5	88	104	18.4	1	—	- 98.0	8	9	13.9	160	178	11.0
Other Expenses	58	41	- 29.2	- 7	- 2	—	35	- 2	—	- 2	- 3	—	85	34	- 59.4
Oil Sands R&D Expensed	45	63	41.3	—	—	—	—	—	—	—	—	40.8	45	63	41.3
E&D Expensed	906	709	- 21.7	—	—	—	22	2	- 91.2	19	48	156.1	946	759	- 19.8
Depreciation	701	785	12.1	508	525	3.3	139	87	- 37.1	9	12	34.7	1356	1409	3.9
Depletion	1298	1318	1.5	—	—	—	12	1	- 90.9	155	138	- 11.1	1465	1457	- 0.6
Write-Offs & Amortization	561	1625	189.5	76	56	- 26.2	- 214	249	—	6	44	—	430	1975	359.2
Non-Cash Charges and E&D	3511	4500	28.2	584	581	- 0.5	- 42	340	—	189	242	28.1	4242	5663	33.5
Income before Taxes	2074	- 451	—	544	16	- 97.0	- 452	- 668	—	195	31	- 84.0	2362	- 1072	—
Federal Income Tax[a]	665	406	- 38.9	318	17	- 94.8	- 121	- 166	—	48	27	- 42.5	909	284	- 68.8
Provincial Income Taxes	256	156	- 38.8	135	18	- 86.7	- 74	- 113	—	--	5	—	316	66	- 79.0
Current Income Taxes	921	563	- 38.9	453	35	- 92.4	- 196	- 279	—	48	32	- 33.2	1226	350	- 71.4
Income after Current Income Taxes	1154	- 1014	—	92	- 18	—	- 256	- 389	—	147	- 1	—	1137	- 1422	—
Deferred Income Taxes	205	- 305	—	- 131	51	—	- 215	24	—	44	- 26	—	- 96	- 256	—
Net Income after Taxes	948	- 709	—	222	- 69	—	- 41	- 413	—	103	25	- 75.8	1232	- 1166	—
Extraordinary Items	- 39	46	—	2	- 60	—	—	—	—	12	—	- 100.0	- 26	- 13	—
Net Income after Extraordinary Items	910	- 663	—	224	- 129	—	- 41	- 413	—	114	25	- 78.3	1207	- 1179	—
Internal Cash Flow	4664	3487	- 25.2	676	563	- 16.7	- 297	- 49	—	336	241	- 28.2	5378	4242	- 21.1

(a) Federal Income Tax includes Large Corporations Tax.

B8

Financial Performance for Main Business Segments
Upstream Operations

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Production of Oil Equivalent [a] in thousands of cubic metres	182629	186135	1.9	76080	78797	3.6	106548	107339	0.7
Key Financial Items in millions of dollars			%			%			%
Sales before Royalties and Taxes	20232	17192	- 15.0	8243	7281	- 11.7	11989	9911	- 17.3
Other Revenues	679	876	29.0	342	459	34.2	337	417	23.7
Gross Revenues	20908	18067	- 13.6	8583	7739	- 9.8	12326	10328	- 16.2
Internal Cash Flow	8166	6242	- 23.6	3501	2755	- 21.3	4664	3487	- 25.2
Net Income	1745	- 1287	—	797	- 578	—	948	- 709	—
Net Income plus Interest	3018	- 136	—	1499	77	- 94.9	1519	- 213	—
Capital Employed	55544	54484	- 1.9	25128	25721	2.4	30416	28763	- 5.4
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Sales before Royalties and Taxes [b]	110.78	92.36	- 16.6	108.35	92.40	- 14.7	112.52	92.33	- 17.9
Other Revenues	3.72	4.70	26.6	4.49	5.82	29.6	3.16	3.88	22.8
Gross Revenues	114.49	97.07	- 15.2	112.81	98.22	- 12.9	115.68	96.22	- 16.8
Royalties and Other Payments	17.85	14.41	- 19.3	16.50	13.79	- 16.4	18.82	14.87	- 21.0
Revenues after Royalties and Taxes	96.63	82.66	- 14.5	96.31	84.43	- 12.3	96.86	81.35	- 16.0
Interest Expenses	6.97	6.19	- 11.3	9.24	8.31	- 10.0	5.36	4.62	- 13.7
Operating Costs (excluding Research)	37.74	38.35	1.6	37.46	38.79	3.5	37.94	38.02	0.2
Research and Other Expenses	1.02	0.78	- 23.7	0.84	0.49	- 41.7	1.14	0.99	- 13.8
Cash Income before Taxes	50.90	37.35	- 26.6	48.77	36.84	- 24.5	52.42	37.72	- 28.0
E&D and Oil Sands R&D Expensed	6.65	5.04	- 24.2	3.47	2.11	- 39.2	8.92	7.19	- 19.3
Depreciation	6.61	7.26	9.9	6.66	7.19	8.0	6.57	7.32	11.3
Depletion	15.43	15.28	- 1.0	19.97	19.37	- 3.0	12.19	12.28	0.8
Write-Offs	3.58	14.63	308.9	1.22	13.95	—	5.27	15.14	187.4
Net Income before Taxes	18.63	- 4.87	—	17.46	- 5.78	—	19.47	- 4.20	—
Federal Income Tax[c]	4.99	3.12	- 37.4	3.24	2.23	- 31.3	6.24	3.78	- 39.4
Provincial Income Taxes	1.19	0.69	- 42.3	- 0.49	- 0.36	—	2.40	1.46	- 39.3
Deferred Income Taxes	2.89	- 1.77	—	4.24	- 0.31	—	1.93	- 2.84	—
Net Income after Taxes	9.56	- 6.92	—	10.47	- 7.34	—	8.90	- 6.60	—
Extraordinary Items	- 0.19	0.24	—	0.06	- 0.02	—	- 0.36	0.43	—
Net Income after Extraordinary Items	9.37	- 6.68	—	10.53	- 7.36	—	8.54	- 6.17	—
Internal Cash Flow	44.71	33.53	- 25.0	46.02	34.96	- 24.0	43.78	32.48	- 25.8
Ratios in percent									
Natural Gas in percent of Total Production	49.5	50.7	—	53.9	54.0	—	46.4	48.2	—

(a) The conversion to oil equivalent is based on heating content; excludes NGL production from reprocessing plants and sulphur.
(b) Includes revenues from sales of NGLs from reprocessing plants and resale of purchased products.
(c) Federal Income Tax includes Large Corporations Tax.

B8 (continued)

Financial Performance for Main Business Segments

Upstream Operations

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Production of Oil Equivalent [a] in thousands of cubic metres	55345	54757	- 1.1	36394	38813	6.6	90890	92566	1.8
Key Financial Items in millions of dollars			%			%			%
Sales before Royalties and Taxes	6670	5308	- 20.4	3430	3152	- 8.1	10133	8731	- 13.8
Other Revenues	132	146	10.3	243	246	1.1	303	484	59.5
Gross Revenues	6802	5454	- 19.8	3673	3398	- 7.5	10434	9215	- 11.7
Internal Cash Flow	2577	1740	- 32.5	1492	1166	- 21.8	4097	3335	- 18.6
Net Income	955	105	- 89.0	120	- 1262	—	670	- 130	—
Net Income plus Interest	996	128	- 87.1	512	- 908	—	1511	644	- 57.4
Capital Employed	15926	15816	- 0.7	11812	10702	- 9.4	27805	27965	0.6
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Sales before Royalties and Taxes [b]	120.51	96.94	- 19.6	94.24	81.22	- 13.8	111.48	94.32	- 15.4
Other Revenues	2.39	2.66	11.5	6.69	6.34	- 5.2	3.34	5.23	56.6
Gross Revenues	122.90	99.60	- 19.0	100.91	87.56	- 13.2	114.80	99.55	- 13.3
Royalties and Other Payments	17.08	13.34	- 21.9	16.97	14.80	- 12.8	18.68	14.88	- 20.3
Revenues after Royalties and Taxes	105.82	86.26	- 18.5	83.94	72.76	- 13.3	96.12	84.67	- 11.9
Interest Expenses	0.74	0.43	- 41.9	10.78	9.12	- 15.4	9.25	8.36	- 9.5
Operating Costs (excluding Research)	45.60	45.01	- 1.3	30.47	32.30	6.0	35.87	36.94	3.0
Research and Other Expenses	1.16	1.02	- 11.9	2.33	1.62	- 30.7	0.40	0.28	- 31.1
Cash Income before Taxes	58.32	39.80	- 31.8	40.36	29.72	- 26.4	50.60	39.10	- 22.7
E&D and Oil Sands R&D Expensed	7.00	5.48	- 21.6	4.22	3.61	- 14.5	7.41	5.38	- 27.4
Depreciation	7.33	9.24	26.0	5.24	5.16	- 1.6	6.72	6.98	3.9
Depletion	10.42	10.12	- 2.9	24.50	22.48	- 8.2	14.84	15.31	3.2
Write-Offs	2.45	7.90	222.5	2.13	35.38	—	4.85	9.92	104.6
Net Income before Taxes	31.12	7.06	- 77.3	4.27	- 36.90	—	16.78	1.50	- 91.0
Federal Income Tax [c]	8.20	5.50	- 32.9	1.70	1.73	2.0	4.36	2.30	- 47.2
Provincial Income Taxes	3.56	2.51	- 29.6	- 2.32	- 2.05	—	1.16	0.76	- 34.3
Deferred Income Taxes	2.10	- 2.86	—	1.61	- 4.08	—	3.89	- 0.15	—
Net Income after Taxes	17.26	1.91	- 88.9	3.29	- 32.51	—	7.57	- 1.41	—
Extraordinary Items	—	—	—	0.13	1.15	—	- 0.43	—	—
Net Income after Extraordinary Items	17.26	1.91	- 88.9	3.42	- 31.36	—	6.95	- 1.41	—
Internal Cash Flow	46.56	31.79	- 31.7	40.99	30.04	- 26.7	45.08	36.03	- 20.1
Ratios in percent									
Natural Gas in percent of Total Production	38.0	39.8	—	60.6	59.8	—	52.1	53.3	—

(a) The conversion to oil equivalent is based on heating content; excludes NGl production from reprocessing plants and sulphur.
(b) Includes revenues from sales of NGLs from reprocessing plants and resale of purchased products.
(c) Federal Income Tax includes Large Corporations Tax.

B9

Financial Performance for Main Business Segments

Downstream Operations

	Total Downstream			Total Oil Products			Petrochemicals and Other		
	1990	1991	Change	1990	1991	Change	1990	1991	Change
Key Financial Items in millions of dollars			%			%			%
Revenues before Sales, Excise & Other Taxes	31734	28020	- 11.7	27879	24718	- 11.3	3855	3302	- 14.3
Other Revenues	1135	934	- 17.7	1118	922	- 17.6	17	13	- 23.3
Total Revenues	32869	28954	- 11.9	28997	25639	- 11.6	3871	3315	- 14.4
Sales, Excise and Other Taxes	5123	3225	- 37.0	5121	3222	- 37.1	2	3	45.3
Cost of Goods Sold	20167	19501	- 3.3	17654	17151	- 2.8	2514	2350	- 6.5
Operating Costs	5198	4902	- 5.7	4450	4244	- 4.6	749	658	- 12.1
R&D Costs	99	116	17.0	64	70	10.0	35	46	29.8
Other Expenses	- 3	3	—	- 1	4	—	- 2	- 1	—
Cash Income before Interest and Taxes	2283	1206	- 47.2	1710	947	- 44.6	573	258	- 55.0
Interest Expenses	323	309	- 4.4	307	284	- 7.5	16	24	56.3
Cash Income before Taxes	1960	897	- 54.3	1402	663	- 52.7	558	234	- 58.1
Current Income Taxes	641	37	- 94.3	520	13	- 97.6	121	24	- 80.2
Internal Cash Flow	1319	860	- 34.8	882	650	- 26.3	437	210	- 52.0
Depreciation and Other Non-Cash Charges	981	1613	64.4	771	1435	86.0	210	178	- 15.2
Income after Current Income Taxes	338	- 753	—	111	- 784	—	227	32	- 86.1
Deferred Income Taxes	- 164	- 228	—	- 125	- 214	—	- 39	- 14	—
Net Income after Taxes	502	- 524	—	236	- 570	—	265	46	- 82.7
Extraordinary Items	2	- 76	—	2	- 64	—	—	- 12	—
Net Income after Extraordinary Items	503	- 600	—	238	- 634	—	265	34	- 87.2

	Total Oil Products [a]			National Refiners-Marketers			Regional Refiners-Marketers		
	1990	1991	Change	1990	1991	Change	1990	1991	Change
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Revenues before Sales, Excise & Other Taxes	320.09	289.76	- 9.5	327.36	298.93	- 8.7	305.56	272.72	- 10.7
Other Revenues	12.84	10.80	- 15.8	13.42	10.74	- 20.0	11.68	10.85	- 7.1
Total Revenues	332.93	300.57	- 9.7	340.78	309.66	- 9.1	317.23	283.57	- 10.6
Sales, Excise and Other Taxes	58.80	37.78	- 35.8	62.55	41.01	- 34.4	51.31	31.76	- 38.1
Cost of Goods Sold	202.69	201.06	- 0.8	203.39	201.89	- 0.7	201.28	199.52	- 0.9
Operating Costs	51.09	49.75	- 2.6	60.07	58.85	- 2.0	33.14	32.77	- 1.1
R&D Costs	0.73	0.82	12.3	1.11	1.26	14.3	- 0.01	0.01	—
Other Expenses	- 0.01	0.05	—	- 0.09	- 0.07	—	0.14	0.26	80.4
Cash Income before Interest and Taxes	19.63	11.11	- 43.4	13.76	6.72	- 51.2	31.36	19.25	- 38.6
Interest Expenses	3.53	3.33	- 5.5	0.00	0.03	—	10.58	9.47	- 10.4
Cash Income before Taxes	16.10	7.77	- 51.7	13.76	6.68	- 51.4	20.79	9.78	- 52.9
Current Income Taxes	5.97	0.15	- 97.5	7.29	- 1.00	—	3.35	2.28	- 31.9
Internal Cash Flow	10.13	7.63	- 24.7	6.47	7.68	18.8	17.44	7.50	- 57.0
Depreciation and Other Non-Cash Charges	8.86	16.82	90.0	8.41	20.46	143.2	9.74	10.06	3.3
Income after Current Income Taxes	1.27	- 9.20	—	- 1.94	- 12.77	—	7.70	- 2.56	—
Deferred Income Taxes	- 1.44	- 2.51	—	- 2.95	- 4.04	—	1.57	0.33	- 78.7
Net Income after Taxes	2.71	- 6.69	—	1.00	- 8.73	—	6.13	- 2.89	—
Extraordinary Items	0.02	- 0.75	—	0.00	0.00	—	0.05	- 2.14	—
Net Income after Extraordinary Items	2.73	- 7.43	—	1.00	- 8.73	—	6.18	- 5.03	—
Ratios as a percentage of total sales volume									
'Clean Products' Sales	78.67	83.57		79.54	84.82		76.92	81.25	
Net Sales in Canada	90.80	88.14		94.26	92.58		83.89	79.90	
Export Sales	9.11	11.86		5.73	7.42		15.86	20.10	

(a) The calculation of unit revenues and costs is based on total sales volume.

B10

Sources and Uses of Funds

in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Internal Cash Flow	9738	7567	- 22.3	4360	3326	- 23.7	5378	4242	- 21.1
Net Increase in Long-term Debt	2662	3423	28.6	1602	1864	16.4	1061	1559	47.0
Issue of Shares	1696	2112	24.6	1392	1792	28.7	304	321	5.6
Incentives, Grants and Tax Credits	95	155	62.9	42	63	47.7	53	92	75.2
All Other Sources	4135	3553	- 14.1	1815	1905	5.0	2320	1648	- 29.0
Working Capital Decrease	1621	2355	45.3	617	457	- 25.9	1004	1898	89.0
Total Sources of Funds	19947	19167	- 3.9	9827	9407	- 4.3	10120	9760	- 3.6
Total Capital Expenditures in Canada	8182	8887	8.6	4065	4141	1.9	4117	4746	15.3
Capital Expenditures in U.S.A.	153	152	- 0.4	89	94	5.1	63	58	- 8.1
Other Foreign Capital Expenditures	501	658	31.3	284	344	20.9	217	314	44.8
Total Foreign Capital Expenditures	654	810	23.9	373	437	17.2	280	372	32.8
Total Company Capital Expenditures	8836	9696	9.7	4439	4578	3.1	4397	5118	16.4
Dividends:									
Common Shares	1386	1227	- 11.5	391	402	2.9	996	825	- 17.1
Preferred Shares	285	127	- 55.5	255	111	- 56.5	30	16	- 46.3
Total	1671	1354	- 19.0	645	513	- 20.6	1026	842	- 18.0
Reduction of Equity	690	977	41.7	448	829	85.1	241	147	- 38.9
Total Dividends and Equity Reduction	2361	2331	- 1.3	1094	1342	22.7	1267	989	- 22.0
Net Decrease in Long-term Debt	3130	1744	- 44.3	954	220	- 76.9	2176	1524	- 29.9
All Other Applications	4038	3034	- 24.9	2406	1698	- 29.4	1632	1336	- 18.2
Working Capital Increase	1582	2361	49.2	935	1568	67.8	648	794	22.5
Total Applications of Funds	19947	19167	- 3.9	9827	9407	- 4.3	10120	9760	- 3.6

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Internal Cash Flow	3326	2422	- 27.2	1824	1479	- 18.9	4589	3666	- 20.1
Net Increase in Long-term Debt	660	323	- 51.1	588	885	50.5	1415	2216	56.6
Issue of Shares	383	715	86.7	633	637	0.6	680	761	11.9
Incentives, Grants and Tax Credits	36	57	61.7	16	6	- 59.6	44	91	107.5
All Other Sources	2271	1785	- 21.4	724	423	- 41.6	1140	1345	18.0
Working Capital Decrease	740	804	8.6	468	485	3.6	413	1065	158.2
Total Sources of Funds	7415	6106	- 17.6	4253	3915	- 7.9	8280	9145	10.5
Total Capital Expenditures in Canada	2681	2971	10.8	1853	1731	- 6.6	3648	4185	14.7
Capital Expenditures in U.S.A.	4	3	- 19.3	10	11	14.0	139	138	- 0.8
Other Foreign Capital Expenditures	84	83	- 2.1	213	302	42.1	204	273	33.7
Total Foreign Capital Expenditures	89	86	- 2.9	223	313	40.9	343	410	19.7
Total Company Capital Expenditures	2770	3057	10.3	2076	2045	- 1.5	3990	4595	15.2
Dividends:									
Common Shares	607	663	9.4	80	98	22.1	699	466	- 33.4
Preferred Shares	96	—	- 99.5	35	24	- 33.0	153	103	- 33.1
Total	703	664	- 5.5	116	122	5.2	853	568	- 33.3
Reduction of Equity	600	6	- 99.0	46	182	295.9	43	789	—
Total Dividends and Equity Reduction	1303	670	- 48.6	162	304	87.9	896	1357	51.5
Net Decrease in Long-term Debt	1504	506	- 66.4	707	288	- 59.3	919	950	3.4
All Other Applications	1002	702	- 30.0	988	898	- 9.1	2047	1434	- 30.0
Working Capital Increase	836	1172	40.2	320	380	19.0	427	809	89.5
Total Applications of Funds	7415	6106	- 17.6	4253	3915	- 7.9	8280	9145	10.5

B11

Upstream Canadian Capital Expenditures by Location
in millions of dollars

	Total Canadian			Provinces			Canada Lands		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Industry									
Land & Lease, Geological & Geophysical	1449	1127	- 22.2	1386	1072	- 22.6	63	55	- 12.5
Exploration Drilling	1258	1213	- 3.6	1118	1094	- 2.1	140	118	- 15.8
Total Exploration	2707	2340	- 13.6	2504	2167	- 13.5	203	173	- 14.8
Development Drilling	1020	1059	3.8	1021	1029	0.8	- 1	29	—
Production	2105	2878	36.7	1980	2342	18.3	125	536	326.9
Non-conventional Heavy Oil & Oil Sands [a]	755	1090	44.5	755	1090	44.5	—	—	—
Total Upstream	6588	7367	11.8	6260	6629	5.9	328	738	125.3
Canadian-Controlled Companies									
Land & Lease, Geological & Geophysical	723	598	- 17.2	720	586	- 18.6	3	13	305.0
Exploration Drilling	741	646	- 12.8	687	621	- 9.6	54	25	- 54.1
Total Exploration	1464	1244	- 15.0	1407	1207	- 14.2	57	37	- 34.0
Development Drilling	546	530	- 2.9	546	527	- 3.6	—	4	—
Production	959	1084	13.1	888	887	- 0.2	70	197	180.7
Non-conventional Heavy Oil & Oil Sands [a]	453	691	52.5	453	691	52.5	—	—	—
Total Upstream	3422	3550	3.7	3295	3311	0.5	127	239	87.9
Foreign-Controlled Companies									
Land & Lease, Geological & Geophysical	726	529	- 27.2	666	487	- 27.0	60	42	- 29.4
Exploration Drilling	517	567	9.5	431	473	9.8	87	94	7.9
Total Exploration	1243	1095	- 11.9	1097	960	- 12.5	146	136	- 7.3
Development Drilling	474	528	11.4	475	503	5.9	- 1	25	—
Production	1147	1794	56.5	1091	1456	33.4	55	338	—
Non-conventional Heavy Oil & Oil Sands [a]	302	399	32.4	302	399	32.4	—	—	—
Total Upstream	3166	3817	20.6	2965	3318	11.9	201	499	148.9

(a) Includes the Bi-Provincial Upgrader.

B12

Capital Expenditures by Activity

in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Exploration	2707	2340	- 13.6	1464	1244	- 15.0	1243	1095	- 11.9
Development	1020	1059	3.8	546	530	- 2.9	474	528	11.4
Production	2105	2878	36.7	959	1084	13.1	1147	1794	56.5
Oil Sands [a]	755	1090	44.5	453	691	52.5	302	399	32.4
Total Upstream	6588	7367	11.8	3422	3550	3.7	3166	3817	20.6
Total Downstream	1116	1295	16.0	480	490	2.0	636	805	26.6
Other Energy Related [b]	20	28	39.4	8	22	166.2	12	7	- 44.9
Other Capital Expenditures	458	196	- 57.1	156	80	- 48.6	303	116	- 61.5
Total Capital Expenditures in Canada	8182	8887	8.6	4065	4141	1.9	4117	4746	15.3
Total Capital Expenditures Abroad	654	810	23.9	373	437	17.2	280	372	32.8
Total Company Capital Expenditures	8836	9696	9.7	4439	4578	3.1	4397	5118	16.4

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Exploration	539	445	- 17.4	890	695	- 21.9	1279	1200	- 6.2
Development	130	161	24.0	371	378	1.8	519	519	0.1
Production	524	880	68.0	506	572	12.9	1075	1427	32.7
Oil Sands [a]	263	377	43.5	10	4	- 58.7	482	709	47.1
Total Upstream	1456	1863	28.0	1777	1648	- 7.2	3355	3855	14.9
Total Downstream	1071	1049	- 2.0	3	7	111.7	42	239	—
Other Energy Related [b]	9	6	- 37.6	10	20	95.7	1	3	133.3
Other Capital Expenditures	146	52	- 64.2	63	56	- 11.5	249	88	- 64.6
Total Capital Expenditures in Canada	2681	2971	10.8	1853	1731	- 6.6	3648	4185	14.7
Total Capital Expenditures Abroad	89	86	- 2.9	223	313	40.9	343	410	19.7
Total Company Capital Expenditures	2770	3057	10.3	2076	2045	- 1.5	3990	4595	15.2

(a) Includes the Bi-Provincial Upgrader
(b) Includes Uranium and Coal.

B13

Balance Sheet

in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Cash, Investments and Marketable Securities	1996	2900	45.3	1016	1746	71.8	979	1154	17.8
Accounts Receivable:									
Affiliates	955	1031	7.9	421	573	36.2	534	458	- 14.3
All Other	7311	5866	- 19.8	2888	2362	- 18.2	4423	3504	- 20.8
Total	8267	6897	- 16.6	3310	2935	- 11.3	4957	3962	20.1
Inventories	4900	3644	- 25.6	1971	1506	- 23.6	2929	2139	27.0
Other Current Assets	874	1132	29.5	345	402	16.4	529	730	38.0
Total Current Assets	16034	14573	- 9.1	6642	6589	- 0.8	9393	7984	- 15.0
Property Plant and Equipment	107920	113427	5.1	49680	53060	6.8	58240	60366	3.7
less: Accumulated Depletion, Depreciation and Amortization	37265	43466	16.6	17840	20959	17.5	19424	22507	15.9
Net Fixed Assets	70655	69960	- 1.0	31839	32101	0.8	38816	37859	- 2.5
Other Long-term Assets	5854	5475	- 6.5	2890	2448	- 15.3	2964	3028	2.2
Total Assets	92544	90008	- 2.7	41371	41137	- 0.6	51172	48871	- 4.5
Accounts Payable:									
Affiliates	1170	1029	- 12.0	131	64	- 51.4	1039	965	- 7.0
All Other	7715	6725	- 12.8	3250	2880	- 11.4	4465	3845	- 13.9
Total	8885	7754	- 12.7	3382	2944	- 12.9	5504	4810	- 12.6
Current Portion of Long-term Debt	597	1456	143.9	348	368	5.7	249	1088	337.2
Other Current Liabilities	4000	2840	- 29.0	1962	1239	- 36.9	2039	1602	- 21.4
Total Current Liabilities	13482	12050	- 10.6	5691	4550	- 20.0	7791	7500	- 3.7
Long-term Debt	20730	22600	9.0	8981	10810	20.4	11748	11790	0.4
Prepayment for Deferred Production	748	718	- 4.0	406	409	0.8	342	309	- 9.7
Accumulated Deferred Income Taxes	11193	10542	- 5.8	4650	4310	- 7.3	6543	6233	- 4.7
Other Long-term Liabilities	5855	6269	7.1	2004	2195	9.5	3851	4074	5.8
Shareholders' Equity:									
Common Shares	15249	16125	5.7	9053	9956	10.0	6197	6169	- 0.5
Preferred Shares	3565	3456	- 3.1	2113	1652	- 21.8	1451	1804	24.3
Retained Earnings	15174	11453	- 24.5	3898	2342	- 39.9	11277	9111	- 19.2
Other Equity	6547	6796	3.8	4575	4914	7.4	1972	1881	- 4.6
Total Shareholders' Equity	40535	37829	- 6.7	19638	18864	- 3.9	20897	18965	- 9.2
Total Liability, Deferred Taxes and Equity	92544	90008	- 2.7	41371	41137	- 0.6	51172	48871	- 4.5
Working Capital	2552	2523	- 1.1	951	2039	114.5	1601	484	- 69.8
	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Cash, Investments and Marketable Securities	355	582	63.8	736	549	- 25.4	904	1760	95.6
Accounts Receivable:									
Affiliates	365	523	43.4	170	236	38.4	420	272	- 35.2
All Other	4117	3421	- 16.9	786	614	- 21.9	2408	1831	- 24.0
Total	4482	3944	- 12.0	957	850	- 11.1	2828	2103	- 25.7
Inventories	4270	3020	- 29.3	90	101	11.9	540	524	- 3.0
Other Current Assets	598	819	37.1	34	52	52.2	243	261	7.5
Total Current Assets	9705	8365	- 13.8	1815	1552	- 14.5	4514	4656	3.1
Property Plant and Equipment	43630	44701	2.5	20183	21648	7.3	44106	47077	6.7
less: Accumulated Depletion, Depreciation and Amortization	15025	17166	14.2	7713	9518	23.4	14526	16782	15.5
Net Fixed Assets	28605	27536	- 3.7	12470	12130	- 2.7	29580	30295	2.4
Other Long-term Assets	2798	2426	- 13.3	428	407	- 4.8	2628	2642	0.5
Total Assets	41108	38326	- 6.8	14713	14089	- 4.2	36722	37593	2.4
Accounts Payable:									
Affiliates	954	867	- 9.1	101	118	16.9	115	44	- 62.0
All Other	4357	3851	- 11.6	935	882	- 5.7	2424	1993	- 17.8
Total	5311	4718	- 11.2	1036	1000	- 3.5	2538	2036	- 19.8
Current Portion of Long-term Debt	69	275	300.9	252	258	2.3	276	922	234.6
Other Current Liabilities	2601	1291	- 50.4	216	80	- 63.1	1184	1470	24.1
Total Current Liabilities	7980	6284	- 21.3	1504	1338	- 11.1	3998	4428	10.8
Long-term Debt	7722	7519	- 2.6	2945	3760	27.7	10063	11320	12.5
Prepayment for Deferred Production	95	63	- 33.6	202	146	- 27.6	450	508	12.9
Accumulated Deferred Income Taxes	5049	4618	- 8.5	1403	1239	- 11.7	4741	4686	- 1.2
Other Long-term Liabilities	2670	3136	17.4	1276	1049	- 17.8	1910	2084	9.1
Shareholders' Equity									
Common Shares	5329	5778	8.4	3898	4234	8.6	6022	6113	1.5
Preferred Shares	17	368	—	1768	1740	- 1.6	1780	1348	- 24.3
Retained Earnings	9193	7506	- 18.3	476	- 536	—	5506	4482	- 18.6
Other Equity	3053	3053	—	1242	1120	- 9.8	2252	2622	16.5
Total Shareholders' Equity	17592	16706	- 5.0	7384	6558	- 11.2	15560	14566	- 6.4
Total Liability, Deferred Taxes and Equity	41108	38326	- 6.8	14713	14089	- 4.2	36722	37593	2.4
Working Capital	1724	2081	20.7	311	214	- 31.3	516	228	- 55.8

B14

Capital Employed[a] by Sector and Segment

in millions of dollars

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Upstream	55544	54484	- 1.9	25128	25721	2.4	30416	28763	- 5.4
Oil Products	13926	12646	- 9.2	5580	4834	- 13.4	8346	7812	- 6.4
Other Downstream	3029	2747	- 9.3	1267	1145	- 9.7	1762	1602	- 9.0
Other Canadian Operations	3147	3674	16.8	1814	2566	41.5	1333	1108	- 16.9
Total Canadian Operations	75646	73550	- 2.8	33789	34265	1.4	41857	39286	- 6.1
Foreign Operations	4192	4407	5.1	2567	2323	- 9.5	1625	2085	28.3
Grand Total	79837	77958	- 2.4	36356	36587	0.6	43482	41370	- 4.9

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Upstream	15926	15816	- 0.7	11812	10702	- 9.4	27805	27965	0.6
Oil Products	13920	12632	- 9.3	4	2	- 52.0	2	11	—
Other Downstream	2499	2178	- 12.8	84	—	- 100.0	447	569	27.5
Other Canadian Operations	609	1230	102.0	405	543	34.2	2133	1900	- 10.9
Total Canadian Operations	32954	31856	- 3.3	12305	11248	- 8.6	30386	30446	0.2
Foreign Operations	200	186	- 7.4	1492	1504	0.8	2499	2718	8.8
Grand Total	33154	32042	- 3.4	13798	12751	- 7.6	32885	33165	0.8

(a) Capital employed is defined as total assets less current liabilities.

B15

Volume and Value of Production

By Province	Alberta			British Columbia			Saskatchewan		
Volume in thousands of cubic metres	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Conventional Crude Oil	50679.0	50295.0	- 0.8	1982.5	1840.3	- 7.2	10173.7	9355.2	- 8.0
Oil Sands	18948.2	19556.6	3.2	—	—	—	—	—	—
Marketable Natural Gas (millions m3)	77018.9	79287.9	2.9	10504.8	12087.8	15.1	5523.5	5646.6	2.2
Gas Plant Liquids - Fields	10787.9	11480.3	6.4	206.0	173.2	- 15.9	140.2	69.7	- 50.3
Gas Plant Liquids - Reprocessing	5982.2	5213.9	- 12.8	164.0	184.6	12.6	0.1	—	100.0
Total - Oil equivalent (a)	153129.8	156233.8	2.0	12311.3	13694.8	11.2	15605.1	14859.4	- 4.8
Value in millions of dollars			%			%			%
Conventional Crude Oil	7833.1	6385.0	- 18.5	301.9	240.9	- 20.2	1280.5	895.8	- 30.0
Oil Sands	2685.7	2238.5	- 16.7	—	—	—	—	—	—
Marketable Natural Gas	4250.0	3857.0	- 9.2	519.8	540.2	3.9	299.5	299.9	0.2
Gas Plant Liquids - Fields	1118.2	1032.9	- 7.6	19.7	16.3	- 17.6	10.2	4.9	- 51.6
Gas Plant Liquids - Reprocessing	521.3	419.1	- 19.6	18.1	15.1	- 16.4	—	—	- 19.2
Total	16714.2	14230.1	- 14.9	861.7	817.1	- 5.2	1590.2	1200.7	- 24.5

By Company Group	Total Industry			Canadian-Controlled			Foreign-Controlled		
Volume in thousands of cubic metres	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Conventional Crude Oil	65301.1	63837.4	- 2.2	26707.9	27417.5	2.7	38593.2	36419.9	- 5.6
Oil Sands	18948.2	19556.6	3.2	6071.0	6392.0	5.3	12877.2	13164.6	2.2
Marketable Natural Gas (millions m3)	93515.6	97532.6	4.3	42401.5	44016.2	3.8	51114.0	53516.4	4.7
Gas Plant Liquids - Fields	11140.1	11729.2	5.3	3324.4	3479.1	4.7	7815.7	8250.1	5.6
Gas Plant Liquids - Reprocessing	6146.3	5398.5	- 12.2	3994.0	3239.0	- 18.9	2152.3	2159.5	0.3
Total - Oil equivalent (a)	183967.7	187632.0	2.0	76385.0	79108.1	3.6	107582.7	108523.8	0.9
Value in millions of dollars			%			%			%
Conventional Crude Oil	9783.4	7823.3	- 20.0	3912.9	3343.8	- 14.5	5870.5	4479.4	- 23.7
Oil Sands	2685.7	2238.5	- 16.7	1010.7	905.0	- 10.5	1675.0	1333.5	- 20.4
Marketable Natural Gas	5110.6	4738.6	- 7.3	2312.1	2159.7	- 6.6	2798.5	2578.8	- 7.8
Gas Plant Liquids - Fields	1149.1	1054.7	- 8.2	340.3	317.1	- 6.8	808.8	737.7	- 8.8
Gas Plant Liquids - Reprocessing	539.5	434.2	- 19.5	344.4	272.7	- 20.8	195.1	161.5	- 17.2
Total	19576.4	16591.5	- 15.3	7985.1	7061.0	- 11.6	11591.3	9530.5	- 17.8

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
Volume in thousands of cubic metres	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Conventional Crude Oil	18998.7	17197.1	- 9.5	13108.2	14130.5	7.8	33194.2	32509.8	- 2.1
Oil Sands	12400.7	12699.0	2.4	326.0	397.0	21.8	6221.5	6460.6	3.8
Marketable Natural Gas (millions m3)	21723.1	22541.7	3.8	22795.9	23992.2	5.2	48996.5	50998.7	4.1
Gas Plant Liquids - Fields	4118.3	4211.1	2.3	1389.2	1628.7	17.2	5632.6	5889.4	4.6
Gas Plant Liquids - Reprocessing	2776.0	2279.7	- 17.9	98.3	116.8	18.8	3272.0	3002.0	- 8.3
Total - Oil equivalent (a)	55984.4	55471.3	- 0.9	36445.9	38886.5	6.7	91537.4	93274.2	1.9
Value in millions of dollars			%			%			%
Conventional Crude Oil	2923.6	2150.1	- 26.5	1925.1	1716.0	- 10.9	4934.7	3957.1	- 19.8
Oil Sands	1666.9	1343.0	- 19.4	44.4	24.9	- 44.0	974.4	870.6	- 10.6
Marketable Natural Gas	1181.6	1065.7	- 9.8	1240.6	1193.7	- 3.8	2688.3	2479.2	- 7.8
Gas Plant Liquids - Fields	433.3	382.5	- 11.7	134.0	145.0	8.2	581.8	527.3	- 9.4
Gas Plant Liquids - Reprocessing	224.9	179.2	- 20.3	8.6	9.3	9.0	306.0	245.7	- 19.7
Total	6579.8	5272.4	- 19.9	3365.8	3102.6	- 7.8	9630.8	8216.5	- 14.7

(a) Includes sulphur but excludes NGL production from reprocessing plants.

B16

Upstream Operating Costs and Royalties
in millions of dollars

By Province	Alberta			British Columbia			Saskatchewan		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Field, Well and Gathering Operations	2394.6	2511.5	4.9	164.1	178.4	8.7	351.1	365.7	4.2
Natural Gas Processing Plants	580.8	598.3	3.0	23.3	27.4	17.8	14.0	11.6	- 17.1
Oil Sands [a]	1436.8	1444.1	0.5	—	—	—	—	—	—
Taxes (excluding Income Taxes)	99.3	115.1	16.0	2.7	4.4	62.1	20.3	14.7	- 27.3
Operating Overhead	1366.2	1444.2	5.7	47.7	58.9	23.3	128.4	122.0	- 4.9
Total Operating Cost	5877.6	6113.3	4.0	237.8	269.0	13.1	513.7	514.1	0.1
Federal Crown Royalties	1.1	0.5	- 54.5	—	—	—	1.0	1.5	43.2
Provincial Royalties and Taxes	2369.5	1921.1	- 18.9	114.0	115.8	1.6	239.0	182.3	- 23.8
Non-Crown Royalties and Other	406.1	334.4	- 17.7	21.1	21.1	0.2	72.1	64.9	- 10.0
Total Royalties	2776.7	2256.0	- 18.8	135.1	137.0	1.4	312.2	248.7	- 20.3

By Company Group	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Field, Well and Gathering Operations	2988.4	3142.2	5.1	1253.2	1365.4	9.0	1735.2	1776.8	2.4
Natural Gas Processing Plants	648.7	666.3	2.7	317.1	325.3	2.6	331.6	340.9	2.8
Oil Sands [a]	1436.8	1444.1	0.5	632.8	637.1	0.7	804.0	807.0	0.4
Taxes (excluding Income Taxes)	126.1	139.2	10.4	39.0	31.1	- 20.2	87.2	108.2	24.1
Operating Overhead	1588.5	1666.3	4.9	557.8	654.3	17.3	1030.7	1012.0	- 1.8
Total Operating Cost	6788.6	7058.2	4.0	2799.9	3013.3	7.6	3988.7	4044.9	1.4
Federal Crown Royalties	2.6	2.5	- 5.0	1.8	1.9	2.8	0.8	0.6	- 23.4
Provincial Royalties and Taxes	2735.3	2227.0	- 18.6	995.5	870.8	- 12.5	1739.7	1356.2	- 22.0
Non-Crown Royalties and Other [b]	522.4	452.8	- 13.3	257.8	214.0	- 17.0	264.6	238.8	- 9.7
Total Royalties	3260.3	2682.2	- 17.7	1255.2	1086.6	- 13.4	2005.1	1595.6	- 20.4

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Field, Well and Gathering Operations	812.0	809.4	- 0.3	707.0	849.2	20.1	1469.5	1483.6	1.0
Natural Gas Processing Plants	238.4	230.6	- 3.3	96.6	108.2	12.1	313.8	327.4	4.3
Oil Sands [a]	829.2	852.2	2.8	5.5	5.4	- 2.1	602.1	586.5	- 2.6
Taxes (excluding Income Taxes)	34.5	43.5	26.3	21.4	19.7	- 7.9	70.3	76.0	8.1
Operating Overhead	614.3	527.6	- 14.1	250.0	256.9	2.8	724.2	881.8	21.8
Total Operating Cost	2528.3	2463.4	- 2.6	1080.5	1239.5	14.7	3179.9	3355.3	5.5
Federal Crown Royalties	0.1	—	100.0	1.2	1.7	43.2	1.3	0.8	- 41.7
Provincial Royalties and Taxes	799.1	590.1	- 26.2	462.3	446.0	- 3.5	1473.9	1190.8	- 19.2
Non-Crown Royalties and Other [b]	146.0	140.5	- 3.7	154.0	126.8	- 17.7	222.4	185.5	- 16.6
Total Royalties	945.2	730.7	- 22.7	617.5	574.5	- 7.0	1697.6	1377.1	- 18.9

(a) Includes overburden removal costs for mining operations.
(b) Includes Federal Crown Royalties and Net Profit Interest Payments to the Government of Canada for production on Canada Lands.

B17

Income and Expense Statement: 1982 – 1991

in millions of dollars

	Upstream									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Revenues	20978	23883	26576	27840	16896	17846	15712	17509	20908	18067
Royalties and Other Payments	5610	6093	6458	6326	3130	3048	2528	2733	3260	2682
PGRT and Other Taxes	1946	2027	2237	1998	451	—	—	—	—	—
Total Revenues after Royalties and Taxes	13422	15762	17882	19516	13316	14798	13183	14776	17648	15385
Interest Expenses	1567	1434	1655	1570	1691	1633	1403	1306	1273	1152
Operating Costs	3979	4188	4683	5226	5184	5043	5762	6371	6893	7137
R&D Costs (excluding Oil Sands)	72	51	64	68	71	62	81	65	64	65
Other Expenses	126	132	128	167	153	123	123	121	122	80
Oil Sands R&D Expensed	57	35	27	36	38	27	37	42	47	65
E&D Expensed	982	824	1085	1033	1128	866	1356	1097	1167	873
Depreciation	546	689	726	834	875	909	1062	1172	1207	1352
Depletion	816	1083	1412	1718	2227	1874	2125	2301	2818	2844
Write-Offs and Amortization	418	1045	605	526	1073	881	585	650	654	2724
Non-Cash Charges and E&D	2818	3677	3856	4147	5341	4556	5164	5262	5893	7858
Income before Taxes	4860	6281	7495	8338	875	3380	650	1650	3403	– 906
Federal Income Tax[a]	1687	2242	2303	2482	757	970	191	408	912	582
Provincial Income Taxes	175	389	607	547	19	151	– 160	– 40	218	128
Current Income Taxes	1862	2631	2910	3029	776	1122	31	368	1130	710
Income after Current Income Taxes	2998	3650	4585	5309	99	2259	620	1282	2273	– 1616
Deferred Income Taxes	1018	1205	1724	1705	33	369	86	440	528	– 329
Net Income after Taxes	1954	2444	2872	3604	66	1890	533	842	1745	– 1287
Extraordinary Gains or Losses	100	75	6	– 334	– 1969	77	229	– 177	– 34	45
Net Income after Extraordinary Items	2054	2519	2878	3270	– 1903	1966	763	665	1711	– 1243
Internal Cash Flow	5790	7325	8452	9456	5440	6815	5784	6544	8166	6242

	Downstream									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Revenues	31263	30660	31244	33376	26171	27019	26982	28824	32869	28954
Sales, Excise and Other Taxes	1811	1777	1935	2314	2972	3963	4251	4861	5123	3225
Total Revenues after Taxes	29452	28883	29310	31062	23200	23056	22731	23963	27745	25729
Cost of Goods Sold	25115	25351	24930	26276	17672	17291	15653	16942	20167	19501
Interest Expenses	260	298	361	201	119	94	76	303	323	309
Operating Costs	2824	2677	2854	3252	3189	3319	3771	4121	5198	4902
R&D Costs	68	62	68	80	70	69	86	98	99	116
Other Expenses	159	189	35	43	54	10	7	– 2	– 3	3
Depreciation	446	572	612	686	698	709	761	807	911	913
Write-Offs and Amortization	26	61	30	170	– 68	19	23	28	71	700
Non-Cash Charges	473	634	642	856	630	728	784	836	981	1613
Income before Taxes	519	– 307	420	353	1466	1546	2354	1665	979	– 716
Federal Income Tax[a]	– 175	– 346	– 17	107	346	431	578	426	465	36
Provincial Income Taxes	– 71	– 118	– 3	19	73	119	212	167	177	1
Current Income Taxes	– 246	– 444	– 20	126	420	551	791	593	641	37
Income after Current Income Taxes	765	137	441	227	1046	995	1564	1072	338	– 753
Deferred Income Taxes	424	213	86	– 116	– 7	107	135	78	– 164	– 228
Net Income after Taxes	376	– 77	355	344	1053	888	1429	994	502	– 524
Extraordinary Gains or Losses	44	– 9	35	– 129	– 213	18	49	– 69	2	– 76
Net Income after Extraordinary Items	420	– 86	389	215	840	906	1478	926	503	– 600
Internal Cash Flow	1273	770	1082	1083	1676	1723	2347	1908	1319	860

(a) Federal Income Tax includes Large Corporations Tax.

B17 (continued)

Income and Expense Statement: 1982 - 1991

in millions of dollars

	Other Canadian and Foreign Operations									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Revenues	4856	4590	4755	4877	4331	4112	4103	4164	4357	4242
Royalties and Other Taxes	204	75	100	169	109	111	76	112	167	112
Total Revenues after Royalties and Taxes	4652	4515	4655	4709	4222	4001	4027	4053	4190	4130
Cost of Goods Sold	1265	1679	1243	1360	1379	1612	1233	1681	1975	2045
Interest Expenses	874	778	784	689	915	535	564	930	887	685
Operating Costs	1643	1309	1286	1514	1144	984	1236	1144	1203	1165
R&D Costs	5	10	10	7	11	3	2	10	8	9
Other Expenses	636	179	182	181	176	135	133	41	54	49
E&D Expensed	92	60	55	68	30	44	203	148	139	136
Depreciation	319	318	373	280	310	262	267	191	273	230
Depletion	224	252	298	469	662	326	401	268	286	263
Write-Offs and Amortization	456	832	230	203	256	- 85	- 74	162	- 235	360
Non-Cash Charges and E&D	1092	1462	955	1019	1259	548	798	770	462	989
Income before Taxes	- 861	- 903	196	- 63	- 663	185	61	- 522	- 400	- 812
Federal Income Tax[a]	- 6	54	8	16	- 172	- 52	48	- 156	- 83	- 162
Provincial Income Taxes	- 8	- 15	- 49	- 26	- 32	- 45	- 1	- 129	- 108	- 127
Current Income Taxes	- 14	39	- 40	- 9	- 204	- 97	47	- 285	- 191	- 289
Income after Current Income Taxes	- 848	- 942	236	- 54	- 458	282	14	- 238	- 209	- 524
Deferred Income Taxes	- 151	- 31	130	70	- 5	6	4	- 17	- 238	- 1
Net Income after Taxes	- 697	- 911	106	- 124	- 453	275	9	- 221	29	- 522
Extraordinary Gains or Losses	8	—	92	- 134	- 1302	15	- 109	- 28	9	—
Net Income after Extraordinary Items	- 733	- 911	197	- 258	- 1754	291	- 100	- 250	38	- 523
Internal Cash Flow	244	520	1191	965	801	829	811	532	253	465

	Total Operations									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Revenues	57097	59133	62575	66092	47390	48977	46796	50408	58134	51263
Royalties and Other Payments	5610	6093	6458	6326	3130	3048	2528	2733	3260	2682
Sales, Excise and Other Taxes	3961	3879	4271	4480	3531	4074	4327	4977	5290	3338
Total Revenues after Royalties and Taxes	47302	49160	51847	55286	40737	41855	39941	42792	49584	45244
Cost of Goods Sold	26380	27031	26173	27636	19051	18903	16886	18622	22142	21546
Interest Expenses	2701	2510	2800	2460	2724	2262	2044	2539	2484	2145
Operating Costs	8222	8174	8823	9992	9517	9346	10769	11637	13294	13205
R&D Costs (excluding Oil Sands)	144	122	142	156	153	135	169	173	172	190
Other Expenses	920	500	344	391	383	267	264	160	174	132
Oil Sands R&D Expensed	57	35	27	36	38	27	37	42	47	66
E&D Expensed	1074	884	1140	1101	1159	910	1559	1245	1306	1009
Depreciation	1312	1579	1711	1799	1883	1881	2090	2171	2391	2496
Depletion	1041	1335	1710	2187	2889	2200	2526	2569	3103	3107
Write-Offs and Amortization	900	1930	865	899	1261	814	533	841	489	3784
Non-Cash Charges and E&D	4383	5773	5452	6022	7230	5832	6745	6868	7336	10460
Income before Taxes	4553	5050	8111	8628	1679	5111	3065	2793	3982	- 2435
Federal Income Tax[a]	1506	1950	2294	2605	931	1350	817	679	1294	456
Provincial Income Taxes	96	256	556	540	60	226	51	- 2	286	2
Current Income Taxes	1602	2206	2850	3146	991	1575	868	676	1580	458
Income after Current Income Taxes	2950	2844	5262	5482	687	3536	2197	2116	2402	- 2893
Deferred Income Taxes	1291	1387	1940	1659	21	482	226	501	126	- 559
Net Income after Taxes	1633	1456	3333	3823	666	3053	1971	1615	2276	- 2334
Extraordinary Gains or Losses	153	66	132	- 596	- 3484	110	170	- 274	- 24	- 32
Net Income after Extraordinary Items	1741	1522	3465	3227	- 2818	3163	2141	1341	2252	- 2366
Internal Cash Flow	7307	8615	10725	11504	7917	9367	8942	8984	9738	7567

(a) Federal Income Tax includes Large Corporations Tax.

B18

Sources and Uses of Funds: 1982 – 1991

in millions of dollars

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Internal Cash Flow	7307	8615	10725	11504	7917	9367	8942	8984	9738	7567
Net Increase in Long-term Debt	3532	1814	4184	1887	1874	915	2284	5344	2662	3423
Issue of Shares	3218	2130	1814	2006	2385	1798	2356	3036	1696	2112
Incentives, Grants and Other Receipts	1468	1658	1885	1854	1122	507	423	214	—	—
All Other Sources	3150	2998	5052	4134	4817	7596	4480	3907	4135	3553
Working Capital Decrease	4380	1527	906	2795	3333	2021	4801	1590	1621	2355
Total Sources of Funds	23055	18754	24565	24181	21448	22204	23286	23085	19947	19167
Upstream Capital Expenditures	6448	6789	7934	9243	6235	5527	6777	5692	6588	7367
Downstream Capital Expenditures	2180	1611	897	751	725	1126	1189	1177	1037	1240
Other Canadian Capital Expenditures	1914	1157	827	778	368	403	515	526	558	280
Total Capital Expenditures in Canada	10542	9557	9658	10773	7328	7057	8480	7395	8182	8887
Capital Expenditures in U.S.A.	589	327	315	718	145	150	144	130	153	152
Other Foreign Capital Expenditures	563	442	360	472	425	345	468	404	501	658
Total Foreign Capital Expenditures	1152	769	675	1190	570	495	611	534	654	810
Total Company Capital Expenditures	11694	10325	10333	11963	7898	7552	9092	7929	8836	9696
Dividends:										
Common Shares	8	96	34	1507	2253	1158	2056	1087	1386	1227
Preferred Shares	138	141	147	268	296	329	408	276	285	127
Total	1115	1234	1334	1775	2549	1487	2464	1363	1671	1354
Reduction of Equity	632	568	166	528	452	456	1408	831	690	977
Total Dividends and Reduction of Equity	1747	1802	1500	2302	3001	1943	3872	2194	2361	2331
Net Decrease in Long-term Debt	3561	1545	2576	1884	2931	4533	2681	1999	3130	1744
All Other Applications	4772	3114	5652	5819	6783	6137	6146	9427	4038	3034
Working Capital Increase	1281	1968	4504	2212	836	2040	1496	1536	1582	2361
Total Applications of Funds	23055	18754	24565	24181	21448	22204	23286	23085	19947	19167

C

Glossary of Terms

Acquisitions – the acquisition of shares or the purchase of assets of other companies. Capital outlays for acquisitions are included under the category 'All Other Uses of Funds' in Monitoring Reports. *(Acquisitions)*

All Other Sources of Funds – includes proceeds from the sale of assets or long-term investments and pre-payments received for future production and the impact of reclassifying short-term debt to long-term, such as occurred in 1984. *(Autres sources de fonds)*

All Other Uses of Funds – includes acquisitions, purchases of used machinery and equipment, and long-term investments. *(Autres affectations de fonds)*

Amortization – the depreciation, depletion or charge-off to expense of tangible and intangible assets over a period of time. It includes costs associated with mineral properties prior to the time they are developed and entered into production. *(Amortissement)*

Canada Lands – physical areas of Canada outside provincial boundaries. *(Terres du Canada)*

Canadian Control – in general, a company is considered to be Canadian-controlled if 50% or more of its voting shares are held by Canadian residents either directly or indirectly through corporations. In a few exceptional cases, when a significant block of shares is held by Canadian residents and the remaining shares are widely held, a company may be effectively Canadian-controlled even though more than 50% of the voting shares are held by non-residents. *(Contrôle canadien)*

Canadian Ownership – the proportion of the total voting shares of a company held, either directly or indirectly through other corporations, by Canadian residents. *(Participation canadienne)*

Capital Employed – the net book value of total assets, less current liabilities. *(Capital utilisé)*

Capital Expenditures – investments in new machinery, equipment, structures and resource properties, whether capitalized or charged directly to current operations. Capital expenditures may also refer to the cost of intangible assets (e.g. cost of leased equipment), capitalized interest and capitalized repair expenditures. *(Dépenses en capital)*

Ceiling Test – a cost recovery exercise that allows users of financial statements to assume that no future losses will occur from the production of current proved reserves. *(Critère de limite maximale)*

Conventional Oil – crude oil recoverable from a well using standard production methods. *(Pétrole classique)*

Current Income Taxes – the portion of the provision for income taxes, both federal and provincial, pertaining to the reporting period and assumed to be currently due. *(Impôts courants)*

Debt/Equity Ratio – refers to the ratio of long-term liabilities (over one year) to shareholders' equity (share capital plus retained earnings) at the end of a specific reporting period. Depending upon their terms and conditions, preferred shares may be classified as either debt or equity (see 'long-term debt'). *(Rapport d'endettement)*

Deferred Income Taxes – accrued tax obligations reflected as an expense in the income statement, but not payable in the current reporting period. Income taxes are deferred, for example, when firms write off capital assets using capital cost allowances for income tax purposes at rates higher than those used in the preparation of their financial reports. *(Impôts reportés)*

Depletion – the amount charged to expense in the company's financial statements with reference to depletable capitalized assets. This is not the earned depletion allowance calculated for income tax purposes. *(Épuisement)*

Depreciation – the amount charged to expense with reference to depreciable capitalized assets. This is not the amount of capital cost allowance that is used to compute depreciation for income tax purposes. *(Dépréciation)*

Development Expenditures – are costs associated with drilling and well completion in an area of proven oil or natural gas reserves, expenditures on field gathering and separation systems, and the cost of acquiring proven reserves. *(Dépenses de mise en valeur)*

Downstream Segment – includes refining and marketing, transportation

and petrochemical operations. *(Secteur aval)*

Energy Mining – uranium and coal mining (excludes oil sands mining). *(Extraction minière des ressources énergétiques)*

Equity – the book value of shareholders' paid-up capital, contributed surplus and retained earnings. *(Avoir propre)*

Exploration Costs – costs associated with the search for oil or natural gas deposits, including all lease fees and land acquisition costs, geological and geophysical expenditures, and exploratory drilling costs whether capitalized or expensed. Exploratory drilling is generally defined as the drilling of a well outside a proven area, or within a proven area but in a previously untested zone, to determine whether oil or gas reserves exist. Also included are costs of dry wells, casing and other materials and equipment abandoned in place. *(Frais d'exploration)*

External Sources of Funds – funds obtained from sources other than internal cash flow. Long-term debt and equity are the main examples. *(Sources externes de fonds)*

Extraordinary Items – income and expense items resulting from highly unusual transactions and are of a type that would not reasonably be expected to recur. *(Postes extraordinaires)*

Full Cost Accounting – an accounting method by which all costs incurred in the search for reserves and in the acquisition, exploration and development of properties are initially capitalized within cost centres but only charged to expense as the reserves considered to be related to those costs are produced. Costs incurred include prospecting, leasing, acquisition, retention, exploration and development costs and associated indirect costs (i.e. general and administrative costs). Operating costs are expensed as incurred. *(Méthode de capitalisation du coût entier)*

Heavy Crude Oil – oil with high viscosity, recoverable only to a very limited extent by using standard production methods. *(Pétrole lourd)*

In-Situ Recovery – refers to recovery methods applicable in heavy oil and oil sands formations without the removal of conglomerates from the location. *(Récupération 'in-situ')*

Integrated Companies – individual companies that have significant revenues in both the upstream and downstream segments. *(Sociétés intégrées)*

Internal Cash Flow – net income after taxes plus exploration and development expenditures expensed in the current period, depreciation, depletion, amortization and deferred income taxes. *(Ressources d'autofinancement)*

Junior Producers – companies that are predominantly exploration and production oriented and that individually generate less than 1% of industry upstream revenues. *(Petits producteurs)*

Large Corporations Tax (LCT) – a tax, introduced in the April 27, 1989 federal budget, which is levied at a rate of 0.175% on capital in excess of $10 million employed in Canada by corporations. The LCT is not deductible in computing income for tax purposes, but is creditable against the corporate 3% surtax. *(Impôt sur les grandes sociétés)*

Long-Term Debt – debt with a maturity date more than one year into the future. Preferred shares may be treated as long-term debt when they are redeemable for a fixed amount without conversion privileges or voting rights. *(Dette à long terme)*

Non-Cash Charges – items expensed in the reporting period that do not require an actual financial outlay for that period. Depreciation, depletion and amortization are the main types of non-cash charges. *(Frais non monétaires)*

Oil Equivalent Conversion – conversion of volumes of natural gas, liquefied petroleum gas and pentanes plus into equivalent volumes of crude oil, based on the relative heat content of these hydrocarbons. *(Conversion en pétrole brut et équivalents)*

Oil Sands – deposits of sands and clays (excluding oil shales) heavily impregnated with semi-solid or solid bitumen, also known as tar sands. Athabasca, Peace River, Wabasca, Cold Lake and Buffalo Head Hills are the main Canadian resource areas. *(Sables pétrolifères)*

"Other Canadian" Operations – includes drilling services, coal and uranium mining, metal mining, and other non-petroleum related activities. Corporate activities may be included under this heading. *(Autres activités au Canada)*

Production Expenditures – all spending related to the production of crude oil and natural gas, including expenditures on natural gas processing plants. *(Dépenses de production)*

Senior Producers – companies that are predominantly exploration and production oriented and that individually generate more than 1% of industry upstream revenues. *(Grands producteurs)*

Successful Efforts Accounting – an accounting method by which only costs resulting directly in identifiable future benefits through discovery, acquisition or development of reserves are capitalized. Costs that do not provide identifiable future benefits are expensed as incurred, or are written off when the properties are determined to be non-productive. Such costs include those related to geological and geophysical studies, retention of underdeveloped properties, and non-productive exploration and development efforts. *(Méthode de capitalisation du coût de la recherche fructueuse)*

Upstream Segment – activities and operations related to the search for, development, production, extraction and recovery of crude oil, natural gas, natural gas liquids and sulphur, as well as the production of synthetic oil. *(Secteur amont)*

Working Capital – current assets (cash, short-term investments, accounts receivable, inventories) less current liabilities (accounts payable, debts and obligations maturing in less than one year). (Fonds de roulement)

D

Terms of Reference

Mandate Under the Energy Monitoring Act

Comprehensive and objective information has been prepared on the financial and operating performance of the energy enterprises comprising oil and gas industry in Canada since 1977. Two statutes have in succession authorized the collection and analysis of the requisite information. The first statute was the Petroleum Corporations Monitoring Act of 1977-78, which was repealed when the successor statute, the Energy Monitoring Act, came into force in February 1983. The latter statute today provides the legal authority under which the information in the current **Canadian Petroleum Industry Monitoring Report** is collected and published.

Likewise, there have been a succession of governmental vehicles used to collect that information and make those analyses. Until 1980, under the Petroleum Corporations Monitoring Act, the Petroleum Monitoring Division of the Department of Energy, Mines and Resources (EMR) was charged by the Minister of EMR with collecting and analysing the data. In August 1980, the Government appointed a Commissioner under the Inquiries Act to perform the tasks of data collection, analysis and reporting as provided under an amended Petroleum Corporations Monitoring Act. This was an interim measure pending the enactment and coming into force of the Energy Monitoring Act. This statute created the Petroleum Monitoring Agency. This administrative structure continued to exist until the federal budget of February 1992 announced the wind-up of the Agency and the roll-in of the monitoring function of the Energy Monitoring Act into the Energy Sector of Energy, Mines and Resources, Canada.

The Energy Monitoring Act, at subsection 5(1), sets out that energy enterprises shall file, twice a year, returns providing data and information relating to:

(a) ownership and control,

(b) sources and application of funds,

(c) exploration, development, production, processing, refining and marketing,

(d) costs and revenues,

(e) deductions, credits, allowances and carry forwards provided under the Income Tax Act,

(f) the distribution and disposition of its revenues and profits,

(g) resources, reserves and properties,

(h) ownership or interest in any other enterprise,

(i) research and development programs, and

(j) other prescribed matters relating to oil and gas production, refining and marketing, and the funds derived from such activities.

Energy enterprises are defined as individuals, corporations, partnerships, trusts or organizations engaged in the exploration for, development, refining and marketing of oil and gas and having consolidated gross annual revenues or assets in excess of $10 million. Regulations prescribe that gross revenues and assets be determined according to accounting standards set out in the Canadian Institute of Chartered Accountants Handbook. Currently only corporations are surveyed. Each energy corporation is required to report on a consolidated basis on the activities of corporations it controls or owns.

Sources of Data and Information

The data published in the *Canadian Petroleum Industry Monitoring Report* are aggregate data derived mainly from survey schedules prescribed by regulations.(1) Since part of the information gathering function falls within areas covered by Statistics Canada, a number of data-sharing agreements were negotiated under section 12 of the Statistics Act. These agreements reduce the industry's response burden in relation to the overall information required. Information also flows from EMR to Statistics Canada. Current data sharing agreements relate to:

- ownership and control of energy enterprises,
- capital structure,
- International flows of funds,
- research and development expenditures,

(1) Currently prescribed schedules are contained in Regulation SOR/91-570.

- exploration, development and capital expenditure intentions,
- quarterly corporate financial statistics,
- employment and compensation, and
- capital expenditures and operating costs.

The first seven of these involve transmission of information from Statistics Canada; the last includes information on such subjects as exploration, development and production expenditures, and royalties to Statistics Canada.

Data Coverage

Industry gross revenues covered *in Canadian Petroleum Industry Monitoring Reports* through aggregation of returns from about 155 reporting enterprises account for over 90% of upstream industry revenues as determined by Statistics Canada. The remaining portion of industry revenues accrues to firms having revenues or assets below the Energy Monitoring Act's current reporting thresholds. The high degree of coverage of industry revenues and the inclusion of all but the smallest energy enterprises enable conclusions drawn from Petroleum Monitoring aggregates to be applied to the industry as a whole. Degrees of coverage of other performance indicators are presented below.

Comparison of Petroleum Monitoring Survey Data with 1991 Industry Aggregates

Percentage of industry aggregates covered

Upstream Production Revenues	93
Upstream Expenditures in Canada	95
Production Volumes:	
Crude Oil and Liquids	90
Marketable Natural Gas	93
Refined Product Sales Volumes	97

Comparison of Survey Results to those of Statistics Canada

The petroleum industry's financial performance is regularly compared to that of other sectors of the economy using aggregate data from Statistics Canada. Net income and rates of return information provided in Chapters 1 and 2 of this report will differ slightly from the results shown in Chapter 3 because the latter is based on Statistics Canada data.

While petroleum industry data from Statistics Canada covers a greater number of companies than the Energy Monitoring Act survey, it excludes government business enterprises as well as the foreign activities of Canadian petroleum companies. The Energy Monitoring Act survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, provided these companies meet the minimum requirements in terms of assets or revenues. In addition, though Statistics Canada may make adjustments to company reported data, the Petroleum Monitoring Division reports only on the industry's activities as they are submitted.

Regarding rates of return, both organizations determine return on capital employed by adding the after-tax portion of interest on long-term debt back to net income. This calculation is prepared for each company individually, using the statutory tax rate on that portion of interest expense which would increase net income, the add back on Statistics Canada aggregate industry results rely on the average effective tax rate, i.e. current taxes as a percentage of net income before taxes.

Ownership and Control Determination

The *Canadian Petroleum Industry Monitoring Report* presents information annually on the level of Canadian ownership and control of the oil and gas industry in Canada. The methodology and sources of information underlying its analyses are summarized below.

In the process of control determination, the definition used is based on whether Canadian or foreign shareholders have potential control over a reporting enterprise's overall operations. Control is a contractual right conferred upon a person, or group of persons, to direct, within the limitations of relevant statutes in the present or at some future date, the affairs or management of a company on a day to day basis or otherwise, usually through the appointment of a majority of a board of directors. Control is not to be confused with managerial responsibility for the firm. The concept of control emerged in order to recognize the separation in modern corporations between managers and shareholders.

Shareholders assert control over management through the board of directors and shareholders' meetings.

Control that is exercised by, for instance, the nomination and election of the majority of the directors is active control. Control is just as real when the shareholder with a continuing right to intervene chooses instead not to exercise that right. The unexercised option to take active control is called potential control. For the purposes of the Energy Monitoring Act, the two types of control, active and potential, are equivalent. Both types are called control. The Canadian Business Corporations Act similarly embraces the concept of potential control within its definition of control which refers to sufficient votes "if exercised, to elect a majority of the directors of the body corporate."

While control is generally based on the ownership of 50% or more of voting shares, it is possible for control to be exercised with a smaller ownership block. A person who owns at least 51% of the voting shares is said to have de jure control. One who owns less than 50% of the voting shares, but is able to alter the composition of the board of directors and/or management, is said to have de facto control. Statistics Canada assigns de facto control of a public corporation, for the purposes of the Corporations and Labour Unions Return Act (CALURA), to a person owning at least 20% of the outstanding voting shares when no other two shareholders together own as much as 20%.(1) The Energy Monitoring Act methodology for determining control in such cases is consistent with that used by Statistics Canada. De facto control may also be conferred upon a person, or group of persons, owning less than 51% of the voting shares of a public or private corporation through several other mechanisms:

(a) *Blocks of voting shares* – two or more shareholders whose holdings together total more than 50% of all shares and who generally act in concert.

(b) *A shareholders' agreement* – an agreement among some or all shareholders to vote or act in certain ways in various contingent circumstances, especially in relation to naming directors.

(c) *Options* – a minority shareholder enjoys the right at any time to acquire additional voting shares to raise his holdings to 51% or more of the outstanding voting shares.

(d) *Personal Relationships* – where two shareholders are related by blood relationship, marriage or adoption, they may be deemed to constitute a voting group.

(e) *Interlocking Directorships* – when corporation A owns at least a minimum percentage of voting shares of corporation B, and is the single largest minority shareholder of corporation B, and both corporations share a large number of common directors, corporation A is said to control corporation B.

For purposes of determining the industry wide level of control, 100% of the relevant yardstick of the controlled company is assigned to the appropriate control category. Thus if the company is effectively controlled by non-residents, for statistical purposes, 100% of its activities are assigned to the foreign-controlled sector regardless of the percentage ownership of voting rights by non-residents. To illustrate, several integrated companies included in this report, though all foreign controlled, have varying degrees of Canadian ownership (up to 30%). However, when measuring the level of control, the entirety of their relevant corporate activities is assigned to the appropriate control sector.

In the case of ownership, that percentage of the relevant yardstick which represents the beneficial ownership of formal equity by non-residents is assigned to the foreign-owned category, while that of Canadian residents is assigned to the Canadian-owned category.

The most commonly used yardsticks are upstream or total petroleum-related revenues (upstream plus downstream). Ownership and control are generally measured on gross revenues recognizing that these best reflect economic activity and that they are a stable proxy for net economic benefits over time. For example, the deduction of

(1) The Ownership, Control, and Country of Control of Corporations, Statistics Canada, June 4, 1987, p.8.

royalties from gross petroleum revenues would have little or no impact on the relative distribution of revenue between Canadian and foreign owners.

Other measurement bases such as assets or capital employed do exist but suffer from the deficiencies of relying upon historical 'book' values rather than current market value, and of being subject to the different accounting techniques used in the petroleum industry such as the full cost and successful efforts methods.

Access to ownership and control information collected under CALURA from those enterprises which report under the Energy Monitoring Act is granted under the Energy Monitoring Regulations SOR 85-328. CALURA requires detailed disclosure of ownership information from all owners of blocks of shares equal to or greater than 5% of total voting shares. Should a reporting energy enterprise fail to file a timely return under CALURA, the Regulation authorizes the Petroleum Monitoring Division to obtain the ownership and control information directly.

Inter-period Comparability of Results

The Canadian Petroleum Industry Monitoring Report presents comparisons of the current reporting period's results with those of previous comparable periods. Such comparisons are sensitive to changes in the list of reporting companies defined as the 'industry', in its analytic groups, i.e. integrateds, refiners, and oil and gas producers, and in the control status of reporting enterprises. To permit valid inter-period comparisons, the group membership and control is fixed according to the reported information for the current period, and that membership and control is imposed on results for the prior reporting period. Where data covering more than two years are presented, group membership and control is deemed to be that prevailing at the time of reporting, except for the immediately preceeding period.

Lists of reporting enterprises (i.e. corporations with more than $10 million in assets or sales) are updated each reporting period. Newly qualifying enterprises are added to the industry aggregates and the respective group only when results for two comparable reporting periods are available. Occasionally, enterprises leave the industry during the current period, by acquisition or wind-up. Prior period results for both the industry and the group presented in the current period's report will reflect the loss of the former reporting enterprise, as enterprise results are excluded from the current and prior period aggregates. Should the departure result from acquisition by a reporting enterprise, the acquired enterprise's prior period results are added to those of the acquiring enterprise regardless of whether the acquired enterprise was in the same analytic group as the acquisitor.

Divestitures or acquisitions by reporting enterprises during the current period may result in an enterprise satisfying the inclusion criteria of an analytic group other than that to which it has been assigned in the prior period's Monitoring Report. For example, where an integrated group member divested itself of its downstream operations during the current period, it would be included in either the senior or junior producer group, depending upon the facts of the matter, for the current period and with that group's aggregate results for the corresponding prior period. It is important to note that all the divesting enterprise's prior period assets and revenues — regardless of the segment of operations — are transferred to the current period analytic group to establish prior period analytic group aggregates.

Similar adjustments to industry and analytic group aggregates are made in cases where ownership switches from Canadian to foreign or vice versa. The current period nationality of ownership determines that of the prior period for purposes of inter-period comparisons. However, in that part of the annual Monitoring Report dealing with ownership and control, the analysis takes into account the changes in the control of the reporting companies as they occur.

E

Profitability Ranges within the Upstream Segment

In the 1990 Monitoring Report, the variability between the rates of return of companies was presented for the years 1989 and 1990. In this report, rates of return on upstream capital employed were produced on the basis of a five-year weighted average in an attempt to reduce the impact of unusually large losses such as those recorded in 1991, caused by the ceiling test write-downs and site restoration charges. The data show the five-year average rates of return for the periods ending in both 1990 and 1991.

In the case of the petroleum industry, the rate of return on upstream capital employed varies, not only by individual companies but by groups of companies in any given year. Of particular importance in causing variability are the following types of transactions:

(a) Write-downs of assets or gains/losses on the sale of assets; and

(b) Ceiling test write-offs.

Other reasons for differing profitability include:

(a) Differences in the production mix; companies producing marketable natural gas, while experiencing a continuous fall in prices from their peak in 1984, have been able to increase production to partly offset the price decline;

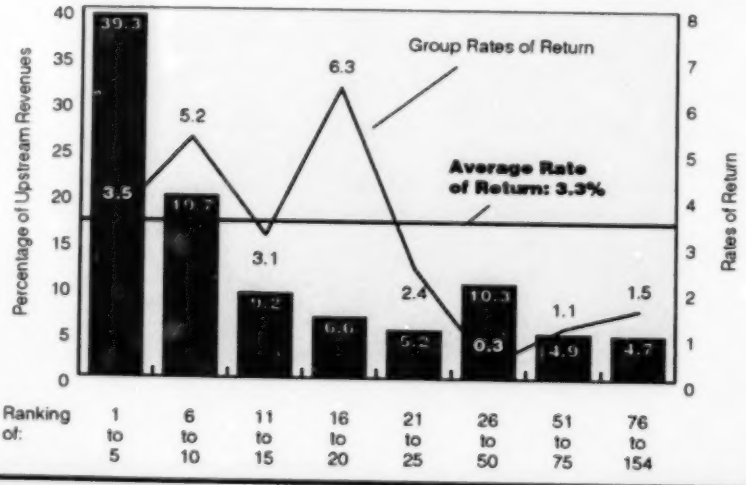
(b) Companies purchasing other companies or assets will show the purchased price which may be higher than the book value of the acquired company, thereby increasing the amount of their capital employed, and reducing future net income through higher depletion and interest expenses;

(c) Companies involved in large projects will increase their capital employed but corresponding revenues may take years to materialize; and

(d) Changes in the application of accounting principles such as site restoration costs.

Chart E1 presents data on petroleum companies ranked on the basis of 1991 upstream revenues, together with their corresponding rates of return on average capital employed, based on a five-year average ending in 1991. The first 25 companies were aggregated into groups of 5, the next 50 into two groups of 25 and the remaining 78 companies into the last group. Within each ranking of companies, their average rate of return

Chart E.1
Rates of Return on Average Upstream Capital Employed[a], and Shares of Upstream Revenues
in percent



(a) The rates of return are calculated on the basis of a five-year weighted average ending in 1991.

for the five-year period ending in 1991 was calculated. The line across the chart represents the average rate of return of 3.3% for the total upstream segment of the petroleum industry. The five-year average rate of return on capital employed ending in 1990 was also 3.3%, reflecting the impact of large losses registered by the industry in 1986.

The five largest companies in terms of upstream revenues account for over 39% of total revenues and have a five-year average rate of return on capital employed of 3.5%. Within the top 25 companies, those ranked from 16 to 20 have the highest rate of return of 6.3%, while those ranked from 21 to 25 have the lowest rate of 2.4%. The group of companies ranked from 26 to 50 has the lowest average rate of return at 0.3%. The group of 78 smallest companies would have reported a negative average rate of return had one company not reported an exceedingly large gain following the sale of assets.

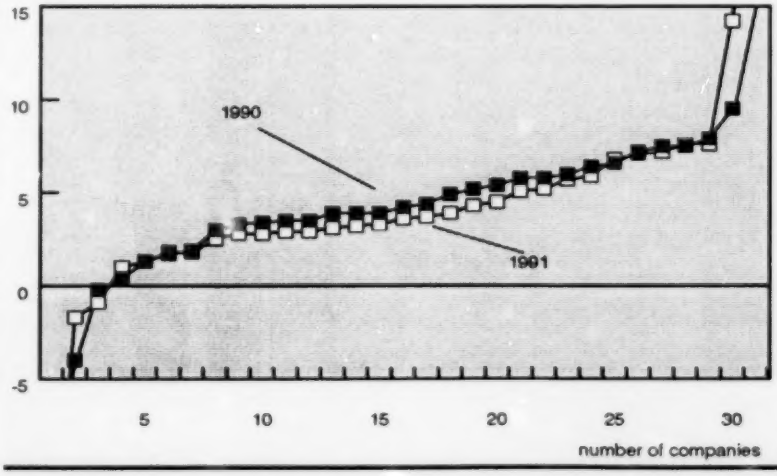
Charts E2 and E3 present the rates of return on average upstream capital employed in ascending order of rates of return, for the five-year average ending in 1990 and 1991. For senior and integrated companies, the range of rates of return varies from negatives lower than 10% to positive returns of over 15%. The average return for this group of companies was 4.1% for the five year period ending in 1991, up from 3.8% for the five year period ending in 1990.

Among the junior companies, the rates of return also vary greatly. The average rate of return for the five-year period ending in 1991 was 0.8%, down from 1.6% reported for the five years ending in 1990.

Chart E4 presents average rates of return for the five year period ending in 1991 in ascending order, together with each company's corresponding result for the five-year period ending in 1990 to show the often large variability of rates of return between the two periods.

While variability between the two periods is to be expected, large differentials are generally the result of unusual or one-time transactions that occurred in either 1986 and 1991. However, while in total both 1986 and 1991 registered large losses, the rates of return ending in 1991 were generally higher than those ending in 1990. In 1986 a small number of companies had very large write-offs vs. the broad based decline in 1991 with many smaller companies taking ceiling test write-downs.

Chart E.2
Rates of Return on Average Upstream Capital Employed[a] in Ascending Order – Integrated and Seniors



(a) The rates of return are calculated on the basis of five-year weighted averages ending in 1990 and 1991.

Chart E.3

Rates of Return on Average Upstream Capital Employed [a] in Ascending Order – Junior Companies

in percent

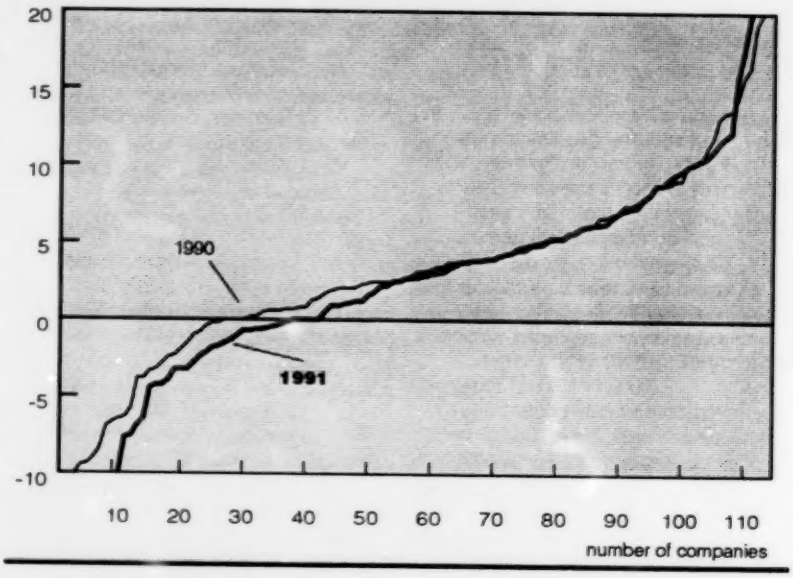
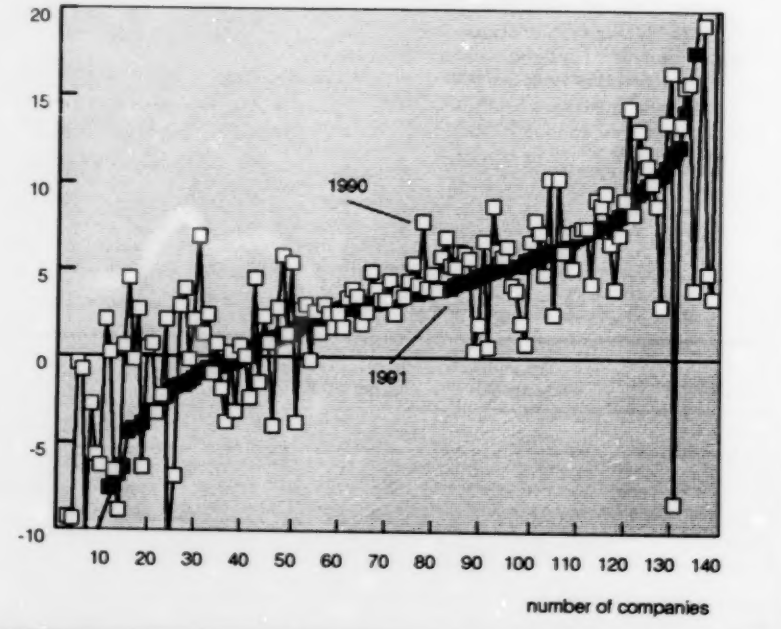


Chart E.4

Rates of Return on Average Upstream Capital Employed [a]

in percent



(a) The rates of return are calculated on the basis of five-year weighted averages ending in 1990 and 1991.

F

Future Removal and Site Restoration Costs

CICA Handbook Section 3060.39 recommends that for fiscal years beginning on or after December 1, 1990, "when reasonably determinable, provisions should be made for future removal and site restoration costs, net of expected recoveries, in a rational and systematic manner by charges to income". CICA further suggests that provisions be recorded as liabilities and not classified with accumulated amortization. When future removal and site restoration costs cannot be reasonably determined, contingent liability accounting should be followed.

In response to this recommendation, industry associations such as the Canadian Petroleum Association and Petroleum Accounting Society of Canada issued broad guidelines on how to assess and determine a company's total liability. It has been accepted that estimates of 'clean-up' costs net of recoveries should be determined based on known technology and current costs. In the 1991 annual survey, reporting companies were requested to provide details concerning the adoption of this new recommendation. Out of 154 companies included, 86 indicated that they adopted the recommendation (Table F1). The remaining companies have not yet adopted the guideline for the two following reasons:

(a) their fiscal years ended prior to December 1, 1991; and

(b) the use of US accounting standards in terms of presentation of financial statements and disclosure by affiliates of US companies.

The main conclusions were:

(a) Total estimates for future removal and site restoration costs exceeded $3.7 billion at the end of 1991. Most of this exposure relates to upstream activities. The impact on downstream was limited due to the possibility of alternate use of properties;

(b) There was no uniformity among companies on the method of expensing the liability. While only a few companies using the successful efforts method of accounting applied the recommendation retroactively, most companies applied it prospectively based on the estimated life of reserves; in some instances the whole liability was charged to 1990 and 1991. As a result, almost $1.9 billion, representing 50% of the total exposure, was charged to income in 1991 and in prior years;

(c) Although most companies accrued the liability on a combined unit of production and straight-line basis, some companies, mostly non-operators, used only straight-line amortization; and

(d) A high percentage of full cost companies charged the accruals to the D,D&A account, while most successful efforts companies treated the accruals as 'other non-cash charges'. Prior years' charges were credited to the 'other long-term liabilities' account on the balance sheet, with corresponding debits to retained earnings and deferred taxes.

Table F.1
Future Removal and Site Restoration Costs

	Full Cost Companies	Successful Efforts Companies	**Totals**
millions of dollars			
Total Exposure	1041	2689	**3730**
Accrued Liability			
1991 Expenses	70	452	**522**
Prior Years' Expenses	271	1070	**1341**
number of companies			
Total Number of Companies	57	29	**86**
Income Statement Category			
D, D & A	38	12	**50**
Other Non-Cash	19	17	**36**

Comparison of expenses between companies is difficult because:

(a) there is little industry experience in determining actual site restoration costs;

(b) each company has used different clean-up standards in the past; and

(c) each company has different asset mixes.

G

The Impact of Ceiling Test Write-downs on Upstream Financial Results in 1986 and 1991

In September 1986, the CICA Accounting Standards Committee issued a guideline for oil and gas companies using the full cost method of accounting. The purpose of the guideline was to limit the variations in the application of full cost accounting. This was achieved by specifying the costs which could be capitalized and amortized, and by limiting through a 'ceiling test' calculation the unamortized costs that can be carried on companies' balance sheets.

The ceiling test is a cost recovery exercise that allows users of financial statements to assume that no future losses will occur from the production of current proved reserves. This will remain valid if all current assumptions on prices, production levels and future development costs used in the presentation of financial statements are proven accurate by future events.

The ceiling test consists of two parts. Under part I of the test, the net amounts at which oil and gas properties are carried on the company's books are compared — by country cost centres — to future net revenues plus the net cost of unproved properties and major development projects; any carrying amounts in excess are written off to expenses. Upward revisions of the estimated values that occur after the date of the test do not result in the reinstatement of the carrying amounts.

Under part II of the test an estimate of the ultimately recoverable amount from all oil and gas properties of an enterprise is made. The ultimate recoverable amount is calculated as future net revenues plus the net cost of major development projects and unproved properties, minus future removal and site restoration costs, G&A expenses, financing costs and income taxes. If the aggregate net carrying value of properties in all cost centres of the enterprise, less related deferred taxes, exceeds the ultimate recoverable amount, the excess is written off. Again, upward improvement in estimates occurring after the date of the test will not result in reinstatement of the carrying value.

For accounting purposes, the write-offs are to be recorded gross (pre-tax) in order to adjust both the net book value of the properties and the corresponding deferred income taxes.

Table G1 compares financial results of the upstream segment in 1986 and 1991, two years in which write-downs due to the ceiling test played a critical role in the weak financial performance. (The data in this table are presented in dollars per cubic metre of oil equivalent.)

In 1991, the average price for a cubic metre of oil equivalent was $97 vs $113 in 1986. While unit crude oil prices were higher in 1991 than in 1986, unit prices for marketable natural gas had fallen to $49 per 10^3 m^3 from $79 per 10^3 m^3 in 1986. In addition, the increase in production of marketable natural gas (up 55% over the five years) and a higher proportion of natural gas as a percent of total production resulted in an overall lower unit price in 1991 on an oil equivalent basis. In 1991, production of natural gas represented 51% of total production volume vs 41% in 1986 (Table

Table G.1
Upstream Financial Performance, 1986 and 1991
in dollars per cubic metre of oil equivalent

	1986	1991
Total upstream revenues	113	97
Less:		
Royalties	21	15
Interest expenses	11	6
Operating costs	35	38
R&D and other cash expenses	4	1
Cash Income before taxes	42	37
Non-cash items and E&D	36	42
Income before taxes	6	- 5
Current income taxes	5	4
Deferred income taxes	—	- 2
Extraordinary losses	13	—
Net Income	- 12	- 7

G2). The overall increase in production, 25% from 1986 to 1991, was mainly attributable to natural gas and, to a lesser extent, to production from oil sands.

As a result, cash income before taxes was $37/m^3 in 1991 compared to $42/m^3 in 1986, despite lower unit royalties and interest costs more than offsetting higher unit operating expenses.

In 1991, 'non-cash items' in Table G1 includes almost $2 billion of write-downs, mostly attributable to part II of the ceiling test. These write-downs had a significant impact on the $7/m^3 loss recorded by the upstream segment in 1991. The main reason for such write-downs was the low price for natural gas, and its high contribution to total production. By contrast, the 1986 write-downs were caused by the fall in crude oil prices.

In 1986 some of the write-downs were reported as extraordinary items due to their large size vis-à-vis the asset base of the reporting companies. For comparison purposes, approximately $1.4 billion of ceiling test write-downs were reported as extraordinary items in 1986. If this amount is moved to the line "Non-cash items and E&D", the two years would be quite similar in terms of the impact of write-downs.

Table G.2
Volumes and Value of Production, 1986 and 1991

	1986			1991		
	Volumes[a]	Value[b]	Average Price	Volumes[a]	Value[b]	Average Price
Conventional Crude	63.2	7315	116	63.8	7823	123
Oil Sands	15.1	1604	106	19.6	2239	114
Marketable Natural Gas	62.7	4943	79	97.5	4739	49
LPGs	10.8	1222	113	12.4	890	72
Pentanes Plus	4.2	586	139	4.8	599	126
Sulphur	6.2	755	121	6.2	302	49
Oil Equivalent	149.4[d]			186.0[c]		
Natural Gas as a % of Total Production	40.6			50.7		

(a) in millions of cubic metres except for natural gas and sulphur which are respectively in billions of cubic metres and millions of tons.
(b) in millions of dollars
(c) excludes sulphur and LPGs from reprocessing plants
(d) excludes sulphur only

H

Accounting for Downstream Inventories

Most Canadian petroleum companies with activities in the downstream segment had until recently used the First-In/First-Out (FIFO) method of accounting for their inventories. The average cost method has also been used by companies. However, a number of companies have now switched to the Last-In/First-Out (LIFO) method which is largely used by companies in the United States.

The choice between FIFO vs. LIFO[1] affects the value of 'cost of goods sold', which is a major deduction in arriving at net income. For both of these methods, 'cost of goods sold' is defined as the value of the opening inventory, plus the cost of goods purchased, less the value of the closing inventory. The method selected for determining cost should be one which results in the fairest matching of costs and revenues regardless of the physical flow of goods.

(1) FIFO and LIFO are accounting concepts used to allocate dollar costs to sales for the purposes of income determination.

FIFO (First-In/First-Out): The cost of the first goods purchased or acquired is the cost assigned to the first goods sold. Therefore, the cost allocated to the inventory items on hand at the end of the period is the cost of those items most recently acquired.

LIFO (Last-In/First-Out): The cost of the goods most recently purchased or acquired is the cost assigned to the first goods sold. As a result, inventory on hand at the end of any period is valued at the cost attributed to the inventory at the beginning of the period. Increases in quantities during a period are valued at the cost prevailing during the time the accumulations are deemed to have occurred. Decreases in quantities are considered to have first reduced the most recent accumulations.

Table H.1

Petroleum Industry Gross Margins using the FIFO Valuation

	Sales			Inventory		Cost of Sales[f]	Gross Margin[g]
	Volumes[a]	Average Unit Price[b]	Value[c]	Crude Cost[d]	Finished Products[e]		
	1000 m3	$/m3	$billion	$/m3	$/m3	$billion	$billion
1990:							
Jul	8158	249	2.03	126	174	1.42	0.61
Aug	8873	245	2.18	120	167	1.48	0.69
Sep	8018	260	2.08	117	164	1.31	0.77
Oct	8277	276	2.29	155	204	1.69	0.60
Nov	7628	298	2.27	207	257	1.96	0.39
Dec	7301	319	2.33	244	294	2.15	0.18
6 months			**13.17**			**9.93**	**3.24**
1991:							
Jan	7320	331	2.43	244	295	2.16	0.27
Feb	6693	315	2.11	214	265	1.77	0.34
Mar	7158	296	2.12	190	240	1.72	0.40
Apr	7312	273	1.99	157	206	1.51	0.49
May	7653	255	1.95	143	191	1.46	0.49
Jun	7084	247	1.75	137	185	1.31	0.44
6 months			**12.35**			**9.93**	**2.43**
12 months			**25.52**			**19.86**	**5.67**

(a) Statistics Canada, Catalog 57-601. Data have been adjusted to eliminate sales to other refiners and to independents.
(b) Statistics Canada, Prices Division
(c) Volume times Average Unit Price.
(d) EMR, Oil and Gas Branch. The data have a 60 day lag.
(e) Includes refining costs reported to Petroleum Monitoring, which were prorated by month to determine the cost of refined products in inventory.
(f) Volume times Finished Products Inventory.
(g) Sales Value minus Cost of Sales.

The analysis in this appendix covers the period from July 1990 to June 1991, a full year that showed two distinctive crude oil price movements:

- the period from July to December 1990, when crude oil prices rose due to the uncertainty in the Persian Gulf; and
- the second period from January to July 1991, during which crude oil prices returned to their prior levels.

For each of these periods two scenarios were considered, depending on whether the industry used FIFO or LIFO. The FIFO scenario has a 60 day lag between the time of purchasing the crude oil and charging it to inventories.

During the second half of 1990, crude prices rose sharply to reach a maximum of $244/m^3$ in October and November, which, under the FIFO methodology translated into high cost inventories in December and January 1991. The data in Tables H1 and H2 were derived from the Petroleum Monitoring data base and EMR, Oil and Gas Branch.

However, had companies used LIFO, the increase in crude oil prices would have resulted in an immediate increase in the cost of goods sold. As a result, the industry's gross margin would have been approximately $1.4 billion, for the period July to December 1990, vs. $3.2 billion under the FIFO method.

By using the FIFO method, the increase in the price of crude oil did not have an immediate impact on the 'cost of goods sold' because of the 60 day delay between purchasing crude oil and charging it to cost of goods sold. The

Table H.2
Petroleum Industry Gross Margins using the LIFO Valuation

	Sales			Inventory		Cost of Sales[f]	Gross Margin[g]
	Volumes[a]	Average Unit Price[b]	Value[c]	Crude Cost[d]	Finished Products[e]		
	1000 m3	$/m3	$billion	$/m3	$/m3	$billion	$billion
1990:							
Jul	8158	249	2.03	117	165	1.35	0.68
Aug	8873	245	2.18	155	202	1.79	0.38
Sep	8018	260	2.08	207	254	2.04	0.05
Oct	8277	276	2.29	244	293	2.43	- 0.14
Nov	7628	298	2.27	244	294	2.24	0.03
Dec	7301	319	2.33	214	264	1.93	0.40
6 months			**13.18**			**11.77**	**1.40**
1991:							
Jan	7320	331	2.43	190	241	1.76	0.66
Feb	6693	315	2.11	157	208	1.39	0.72
Mar	7158	296	2.12	143	193	1.38	0.74
Apr	7312	273	1.99	137	186	1.36	0.63
May	7653	255	1.95	136	184	1.41	0.54
Jun	7084	247	1.75	132	180	1.28	0.48
6 months			**12.35**			**8.58**	**3.77**
12 months			**25.53**			**20.35**	**5.17**

(a) Statistics Canada, Catalog 57-601. Data have been adjusted to eliminate sales to other refiners and to independents.
(b) Statistics Canada, Prices Division
(c) Volume times Average Unit Price.
(d) EMR, Oil and Gas Branch.
(e) Includes refining costs reported to Petroleum Monitoring, which were prorated by month to determine the cost of refined products in inventory.
(f) Volume times Finished Product Inventory.
(g) Value minus Cost of Sales.

high crude oil price in October had a delayed effect on the cost of goods sold, which totalled $9.9 billion for the last six months of 1990.

Therefore, during the second half of 1990, if the petroleum industry had used LIFO instead of FIFO, it would have reported lower profits due to a higher 'cost of goods sold'. The 'cost of goods sold' was $1.8 billion lower in value under FIFO than under LIFO methodology.

During the first half of 1991, crude prices fell, from $\$190/m^3$ in January to $\$132/m^3$ in June, corresponding to an average price of $\$149/m^3$ for this period.

In a decreasing price environment, the results are reversed. Using LIFO would have resulted in a lower cost of goods sold ($8.6 billion for the first six months of 1991), whereas, using FIFO (under which the cost of goods sold was $9.9 billion for the first six months of 1991) would have carried over high priced inventories built with crude bought in November and December, 1990.

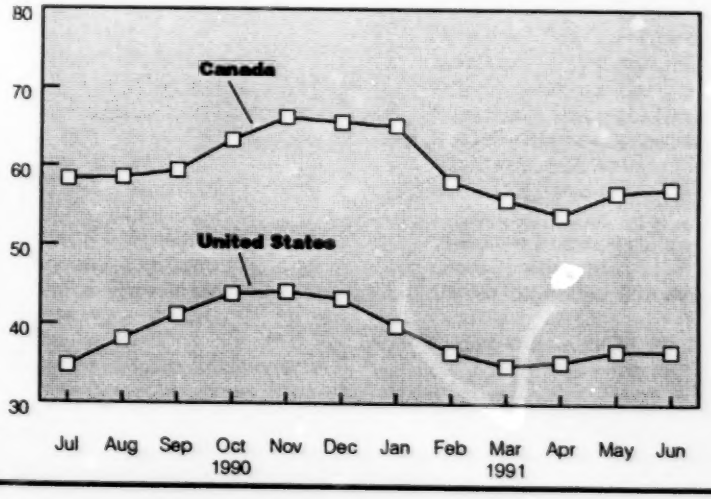
Therefore, had the petroleum industry used the LIFO method during the first half of 1991, higher profits would have been reported due to lower 'cost of goods sold'. The difference in the value of inventories would have been $1.3 billion.

During the annual cycle starting July 1990, the use of FIFO resulted in a 'cost of goods sold' of 2.4% lower than what would have been obtained by using LIFO.

However, Canadian companies (most using the FIFO method) reported oil products losses of $300 million for the first six months of 1991. Lower demand for petroleum products and strong competition for market share affected the ability of companies to recover the higher cost of inventories built during the last part of 1990.

In addition, the sharp drop in petroleum product prices that occurred in the first quarter of 1991 was driven by competition from the United States, where the fall in crude prices was promptly reflected in the price of goods sold, due to US companies using the LIFO method (Chart H1).

Chart H.1
Average Motor Gasoline Retail Price – All Grades
in cents per litre



Reporting Energy Enterprises

Alberta Energy Company Ltd.
Alberta Oil Sands Equity
Altana Exploration Company
Altex Resources Ltd.
Amax Petroleum of Canada Inc.
Amerada Hess Canada Ltd.
American Eagle Petroleums Ltd.
American Trading and Production Corporation
Amoco Canada Petroleum Company Ltd.
Anadarko Petroleum of Canada Ltd.
Anderson Exploration Ltd.
AT&S Exploration Ltd.
ATCOR Ltd.
Atlantis Resources Ltd.
Barnwell of Canada, Limited
Beau Canada Exploration Ltd.
Bow Valley Industries Ltd.
Bowtex Energy (Canada) Corporation
BP Canada Inc.
Buttes Resources Canada, Ltd.
Cabre Exploration Ltd.
Canada Northwest Energy Limited
Canadian "88" Energy Corp.
Canadian Conquest Exploration Inc.
Canadian Hunter Exploration Ltd.
Canadian Jorex Limited
Canadian-Montana Gas Company Limited
Canadian Occidental Petroleum Ltd.
• Canadian Turbo Inc.
Cancarb Gas Services Limited
Chauvco Resources Ltd.
• Chevron Canada Limited
Chevron Canada Resources Limited
Chevron Standard Limited
CIC Industrial Interests Inc.
Cimarron Petroleum Ltd.
Claude Resources Inc.
CN Exploration Inc.
Co-enerco Resources Ltd.
Coho Resources Limited
Colonial Oil & Gas Limited
Columbia Gas Development of Canada Ltd.
Conoco Canada Limited
Consolidated Norex Resources Corp.
Conwest Exploration Company Limited
Corexcana Ltd.
CS Resources Limited
Czar Resources Ltd.
DEKALB Energy Canada Ltd.
Discovery West Corp.
Dorset Exploration Ltd.
Dynex Petroleum Ltd.
Encor Inc.
Enerplus Resources Corporation
Enron Oil Canada Ltd.
Excel Energy Inc.
• Federated Co-operatives Limited
Forest Oil Corporation (Canada Division)
Gardiner Oil and Gas Limited
Government of Canada
Gulf Canada Resources Limited
Hamilton Brothers Canadian Gas Company, Ltd.
Harvard International Resources Ltd.
Hillcrest Resources Ltd.
Home Oil Company Limited
• Husky Oil Ltd.
• Imperial Oil Limited
Intensity Resources Ltd.
International Colin Energy Corp.
Inuvialuit Petroleum Corporation
Inverness Petroleum Ltd.
• Irving Oil Limited
J.M. Huber Corporation
Joss Energy Ltd.
Kerr-McGee Canada Ltd.
Koch Exploration Canada, Ltd.
LASMO Canada Inc.
LASMO Nova Scotia Limited
LL&E Canada, Ltd.
Lone Pine Resources Ltd.
Luscar Ltd. (Oil & Gas Division)
Maligne Resources Limited
Mannville Oil & Gas Ltd.
Mark Resources Inc.
MLC Oil and Gas Ltd.
Mobil Oil Canada, Ltd.
• Mohawk Oil Company Limited
• Moose Jaw Asphalt Inc.
Morgan Hydrocarbons Inc.
Morrison Petroleums Ltd.
Mosbacher Holding Company
Murphy Oil Company Ltd.
NAL Resources Ltd.
New Jordan Petroleum Ltd.
• NewGrade Energy Inc.
• Newfoundland Processing Limited
Norcen Energy Resources Limited
North Canadian Oils Limited
Northstar Energy Corporation
Norwich Resources Canada Ltd.
Nova Scotia Resources Limited
• Novacor Chemicals (Canada) Ltd.
Novalta Resources Inc.
Numac Oil & Gas Ltd.
Ocelot Energy Inc.
Omega Hydrocarbons Ltd.
OMV (Canada) Ltd.
Opinac Exploration Limited
Orbit Oil & Gas Ltd.
Paloma Petroleum Ltd.
Pan-Alberta Resources Inc.

• Denotes companies included in group of 'Integrateds and Refiners'. All other companies belong to the category of 'Oil and Gas Producers'.

Panarctic Oils Ltd.
PanAtlas Energy Inc.
PanCanadian Petroleum Limited
Pancontinental Oil Ltd.
Paragon Petroleum Corporation
Paramount Resources Ltd.
- Parkland Industries Ltd.

Pecten Canada Limited
Pembina Corporation
Penn West Petroleum Ltd.
Pennzoil Petroleums Ltd.
- Petro-Canada

Petrorep (Canada) Ltd.
Phillips Petroleum Canada Ltd.
Phillips Petroleum Company Western Hemisphere
Phillips Petroleum Resources, Ltd.
Pinnacle Resources Limited
Poco Petroleums Ltd.
Quintana Exploration Canada Ltd.
Ranchmen's Resources Ltd.
Ranger Oil Limited
Renaissance Energy Ltd.
Rife Resources Ltd.
Roan Resources Ltd.
Royal Trust Energy Corporation
Saskatchewan Oil and Gas Corporation
Sceptre Resources Limited
- Shell Canada Limited

Star Oil & Gas Ltd.
Summit Resources Limited
- Suncor Inc.

Tarragon Oil and Gas Limited
Telesis Oil and Gas
Texaco Canada Petroleum Inc.
Total Petroleum Oil and Gas Ltd.
Trilogy Resource Corporation
Triton Canada Resources Ltd.
Ulster Petroleums Ltd.
- Ultramar Canada Inc.

Union Pacific Resources Inc.
United Tri-Star Resources Ltd.
Unocal Canada Limited
Voyager Energy Inc.
Wainoco Oil Corporation
Webb International Minerals Inc.
Westar Petroleum Ltd.
Westcoast Petroleum Ltd.
Wintershall Canada Ltd.